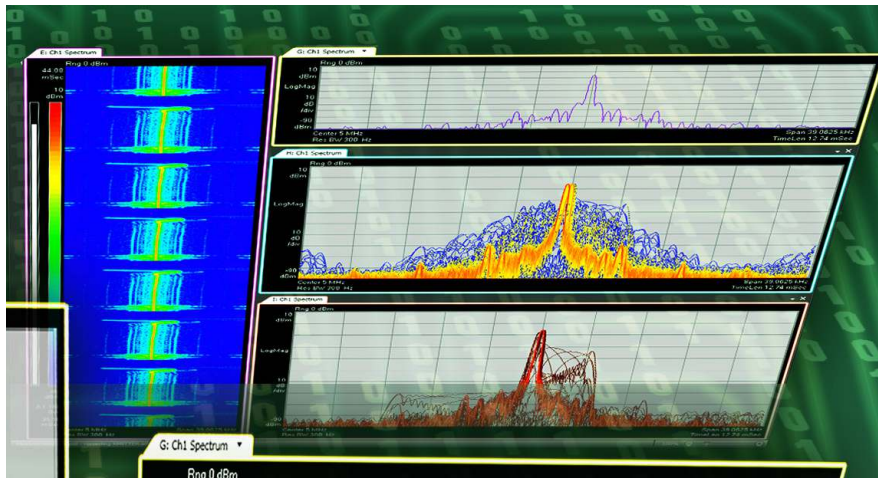


# Keysight Technologies 89600 VSA Software

## Configuration Guide



This Keysight Technologies Inc. 89600 VSA software configuration guide will help you configure your new or existing 89600 VSA with the measurement options, licenses, and updates you need.

## Configure your New 89600 VSA Software

This step-by-step process will help you configure your new 89600 VSA software when making your initial order. See the Upgrade section to add any of these options after initial purchase.

### Step 1: Select desired license

Description	Model-option		Notes
	Transportable license	Floating license	
Basic vector signal analysis	89601B-200	89601BN-200	Provides basic time and spectrum measurements, powerful displays, analysis of imported data files, links to MathWorks Simulink, Keysight SystemVue, and ADS products.

Choose from two license types:

- Transportable: Order 89601B if the software license will reside on a PC/instrument. The license can be transferred to another PC/instrument at any time.
- Floating license: Order 89601BN if the software license will reside on a server to be accessed by multiple users.

### Step 2: Connectivity

Do you need to analyze a signal from hardware? If so, please order Option 300. If not, please proceed to step 3.

Description	Model-option		Notes
	Transportable license	Floating license	
Hardware connectivity	89601B-300	89601BN-300	Connectivity to over 40 Keysight instruments, including signal analyzers, oscilloscopes, logic analyzers, and more. For complete list visit: <a href="http://www.keysight.com/find/89600_hardware">www.keysight.com/find/89600_hardware</a>

### Step 3: Select measurement options

Description	Model-option		Notes
	Transportable license	Floating license	
<b>General purpose</b>			
Vector modulation analysis	89601B-AYA	89601BN-AYA	Analysis of more than 30 digital modulation formats, including presets for communication formats like Zigbee, Bluetooth®, APCO 25 and SOQPSK
Custom OFDM modulation analysis	89601B-BHF	89601BN-BHF	Modulation analysis of proprietary and pre-standard OFDM formats
Custom IQ modulation analysis	89601B-BHK	89601BN-BHK	Modulation analysis of proprietary and pre-standard, customized IQ constellation signals (requires Option AYA)
Spectrum analysis	89601B-SSA	89601BN-SSA	Fast stepped spectrum analysis, only available with M9391A and M9393A PXIe vector signal analyzers
<b>Cellular communications</b>			
LTE-Advanced FDD modulation analysis	89601B-BHG	89601BN-BHG	Modulation analysis of LTE-Advanced FDD (Release 10) signals (requires Option BHD)
LTE-Advanced TDD modulation analysis	89601B-BHH	89601BN-BHH	Modulation analysis of LTE-Advanced TDD (Release 10) signals (requires Option BHE)
LTE FDD modulation analysis	89601B-BHD	89601BN-BHD	Modulation analysis of LTE FDD (Release 8/9) signals
LTE TDD modulation analysis	89601B-BHE	89601BN-BHE	Modulation analysis of LTE TDD (Release 8/9) signals
cdma2000®/1xEV-DV modulation analysis	89601B-B7T	89601BN-B7T	Modulation analysis for cdma2000 and 1xEV-DV signals
W-CDMA/HSPA+ modulation analysis	89601B-B7U	89601BN-B7U	Modulation analysis for W-CDMA and HSPA+ signals
1xEV-DO modulation analysis	89601B-B7W	89601BN-B7W	Modulation analysis for 1xEV-DO signals
TD-SCDMA/HSPA modulation analysis	89601B-B7X	89601BN-B7X	Modulation analysis for TD-SCDMA and HSPA signals
3G modulation analysis bundle	89601B-B7N	89601BN-B7N	Option bundle for 3G analysis, includes -B7T, -B7U, -B7W, and -B7X
<b>Wireless connectivity</b>			
WLAN 802.11ac modulation analysis	89601B-BHJ	89601BN-BHJ	Modulation analysis for WLAN 802.11ac signals (requires Option B7Z)
WLAN 802.11n modulation analysis	89601B-B7Z	89601BN-B7Z	Modulation analysis for WLAN 802.11n signals
WLAN 802.11a/b/g modulation analysis	89601B-B7R	89601BN-B7R	Modulation analysis for WLAN 802.11a/b/g/j/p signals
WiMAX™ 802.16 modulation analysis	89601B-B7Y	89601BN-B7Y	Modulation analysis for Mobile and Fixed WiMAX™ 802.16 signals
RFID modulation analysis	89601B-BHC	89601BN-BHC	Modulation analysis for RFID signals, including NFC formats
TEDS modulation analysis	89601B-BHA	89601BN-BHA	Modulation analysis of TEDS/ TETRA2 signals

## Keeping your 89600 VSA up-to-date

Each Option 200 order includes 12 months of update and subscription service, at no additional charge. Renewals can be purchased to extend the service and keep your software current. The software update and subscription service offers the advantage of immediate notification and access to the latest enhancements available for the 89600 VSA software.

[www.keysight.com/find/89601BU](http://www.keysight.com/find/89601BU)

## Upgrade your Existing 89600 VSA Software

This section explains how to configure your 89600 VSA software order when you are upgrading your existing 89600 VSA software.

[www.keysight.com/find/89600\\_upgrades](http://www.keysight.com/find/89600_upgrades)

## License type and option selection

All 89600 VSA options are optional, with the exception of Option 200.

For 89601BN, floating license, Option 200 determines the maximum number of simultaneous users. It is not required that all measurement options have the same quantity.

In this example, a maximum of five users can use the 89600 VSA software at the same time; however only two can make TD-SCDMA measurements, only one can make LTE measurements and the remaining two can connect to hardware to make basic time and spectrum measurements.

Description	Model-option	Quantity
Basic vector signal analysis	89601BN-200	5
Hardware connectivity	89601BN-300	5
TD-SCDMA/HSPA modulation analysis	89601BN-B7X	2
LTE FDD modulation analysis	89601BN-BHD	1

## Upgrading 89601B, transportable license measurement options

Choose the option(s) you want for added measurement capability. To determine if you already have an option, go to the 89600 VSA toolbar and select Utilities >Licenses... > Options. The options you have installed are indicated with a Yes.

## Upgrading 89601BN, floating license measurement options

For a floating-licensed system, the quantity of any one measurement option should not exceed the Option 200 quantity. Check with your network manager to determine the Option 200 quantity in your system.

For more information, please refer to the license type and option selection table on page 3.

## Update and Subscription Service

[www.keysight.com/find/89601BU](http://www.keysight.com/find/89601BU)

The 89601BU/BNU software update and subscription service offers you the advantage of immediate access to the latest features and enhancements available for the 89600 VSA software and is the best way to protect your software investment. New 89600 VSA orders include 12 months of the service at no additional charge.

The update and subscription service gives you the following benefits:

- Immediately updates your 89600 software (v13.0 or higher) and all licensed options to the most current version
- Provides updates for the period of the subscription, 12 to 24 months

To check that your software and license are up to date, follow these steps:

- Check the version number of your software by selecting Help > About in the 89600 VSA software toolbar and comparing that to the current version number found at [www.keysight.com/find/89600\\_updates](http://www.keysight.com/find/89600_updates).
- If you do not have the current version of the 89600 software, check your license version by selecting Utilities > Licenses... in the 89600 VSA software toolbar. Compare this to the license version required for the current version at [www.keysight.com/find/89600\\_updates](http://www.keysight.com/find/89600_updates).
- If your license version is greater than or equal to the current version, no new license is needed. Simply download and install the new software version.
- If your license version is lower than the current version, order the 89601BU/BNU software update and subscription service to update your software to the latest version. [www.keysight.com/find/89601BU](http://www.keysight.com/find/89601BU)

To renew your 89600 VSA software update and subscription service, select the appropriate license type and term.

Description	Model-Option		Notes
	Transportable license	Floating license	
12 month standalone software update and subscription service	89601BU-012	89601BNU-012	Immediately updates software to current version and provides 1 year of updates
24 month standalone software update and subscription service	89601BU-024	89601BNU-024	Immediately updates software to current version and provides 2 years of updates

For a complete list of time durations available for update and subscription service, visit [www.keysight.com/find/89601BU](http://www.keysight.com/find/89601BU).

## PC Requirements

Any laptop, desktop PC or Windows-based instrument may be used to run the 89600 VSA software, as long as it meets or exceeds the following minimum requirements. For a list of the most current requirements, see [www.keysight.com/find/89600-pc](http://www.keysight.com/find/89600-pc)

<b>Operating system</b>	Microsoft Windows 7 and 8 Professional, Enterprise, or Ultimate (32 bit or 64 bit)
<b>CPU</b>	1 GHz (> 2 GHz recommended)
<b>RAM</b>	2 GB (4 GB recommended)
<b>Video RAM</b>	128 MB minimum (512 MB recommended)
<b>Windows experience index</b>	> 5 (recommended)
<b>Hard disk</b>	3 GB minimum available
<b>Additional drives</b>	DVD to load the software; license transfer requires network access or a USB memory stick
<b>Interface support</b>	LAN, GPIB, USB, or FireWire <sup>1</sup> interface (VXI HW only) <sup>2</sup> For 89601B/BN-SSA, PCIe Express card interface to PXI mainframe or an embedded PC M9036A/37A to be used.
<b>Browser</b>	Internet explorer V9.0 or higher required for more reliable context sensitive help functionality

1. For a list of supported IEEE-1394 (FireWire) interfaces, visit [www.keysight.com](http://www.keysight.com) and search the FAQ's for information on "What type of IEEE-1394 interface can I use in my computer to connect to the 89600S VXI hardware?"
2. If using VXI and Windows 7, only 32-bit operation supported
3. Running the 89600 VSA software in a virtual machine environment is not supported.

## Floating License Server Requirements

The 89601BN requires loading a vendor daemon on a license server. This server may be the same PC running the 89600 software. Full installation instructions and support are provided for compatible server operating systems: Windows 7 Professional, Enterprise, Ultimate (32 or 64 bit); Windows Server 2008.

## Additional Resources

### Literature

- 89600 VSA Software, Brochure, p/n 5990-6553EN
- 89601B/BN-200 Basic VSA and -300 Hardware Connectivity, Technical Overview, p/n 5990-6405EN

### Web

[www.keysight.com/find/89600vsa](http://www.keysight.com/find/89600vsa)

**myKeysight**

**myKeysight**

[www.keysight.com/find/mykeysight](http://www.keysight.com/find/mykeysight)

A personalized view into the information most relevant to you.



**www.axistandard.org**

AdvancedTCA® Extensions for Instrumentation and Test (AXIe) is an open standard that extends the AdvancedTCA for general purpose and semiconductor test. Keysight is a founding member of the AXIe consortium.



**www.lxistandard.org**

LAN eXtensions for Instruments puts the power of Ethernet and the Web inside your test systems. Keysight is a founding member of the LXI consortium.



**www.pxisa.org**

PCI eXtensions for Instrumentation (PXI) modular instrumentation delivers a rugged, PC-based high-performance measurement and automation system.



**Three-Year Warranty**

[www.keysight.com/find/ThreeYearWarranty](http://www.keysight.com/find/ThreeYearWarranty)

Keysight's commitment to superior product quality and lower total cost of ownership. The only test and measurement company with three-year warranty standard on all instruments, worldwide.



**Keysight Assurance Plans**

[www.keysight.com/find/AssurancePlans](http://www.keysight.com/find/AssurancePlans)

Up to five years of protection and no budgetary surprises to ensure your instruments are operating to specification so you can rely on accurate measurements.



**www.keysight.com/quality**

Keysight Technologies, Inc.  
DEKRA Certified ISO 9001:2008  
Quality Management System

**Keysight Channel Partners**

[www.keysight.com/find/channelpartners](http://www.keysight.com/find/channelpartners)

Get the best of both worlds: Keysight's measurement expertise and product breadth, combined with channel partner convenience.

cdma2000 is a US registered certification mark of the Telecommunications Industry Association. Used under license.

Bluetooth and the Bluetooth logos are trademarks owned by Bluetooth SIG, Inc., U.S.A. and licensed to Keysight Technologies.

WiMAX, Fixed WiMAX, Mobile WiMAX, WiMAX Forum, the WiMAX Forum logo, WiMAX Forum Certified, and the WiMAX Forum Certified logo are US trademarks of the WiMAX Forum.

ATCA®, AdvancedTCA®, and the ATCA logo are registered US trademarks of the PCI Industrial Computer Manufacturers Group.

[www.keysight.com/find/89600vsa](http://www.keysight.com/find/89600vsa)

For more information on Keysight Technologies' products, applications or services, please contact your local Keysight office. The complete list is available at: [www.keysight.com/find/contactus](http://www.keysight.com/find/contactus)

**Americas**

Canada	(877) 894 4414
Brazil	55 11 3351 7010
Mexico	001 800 254 2440
United States	(800) 829 4444

**Asia Pacific**

Australia	1 800 629 485
China	800 810 0189
Hong Kong	800 938 693
India	1 800 112 929
Japan	0120 (421) 345
Korea	080 769 0800
Malaysia	1 800 888 848
Singapore	1 800 375 8100
Taiwan	0800 047 866
Other AP Countries	(65) 6375 8100

**Europe & Middle East**

Austria	0800 001122
Belgium	0800 58580
Finland	0800 523252
France	0805 980333
Germany	0800 6270999
Ireland	1800 832700
Israel	1 809 343051
Italy	800 599100
Luxembourg	+32 800 58580
Netherlands	0800 0233200
Russia	8800 5009286
Spain	0800 000154
Sweden	0200 882255
Switzerland	0800 805353
	Opt. 1 (DE)
	Opt. 2 (FR)
	Opt. 3 (IT)
United Kingdom	0800 0260637

For other unlisted countries:  
[www.keysight.com/find/contactus](http://www.keysight.com/find/contactus)  
(BP-07-10-14)