

89600 VSA Software

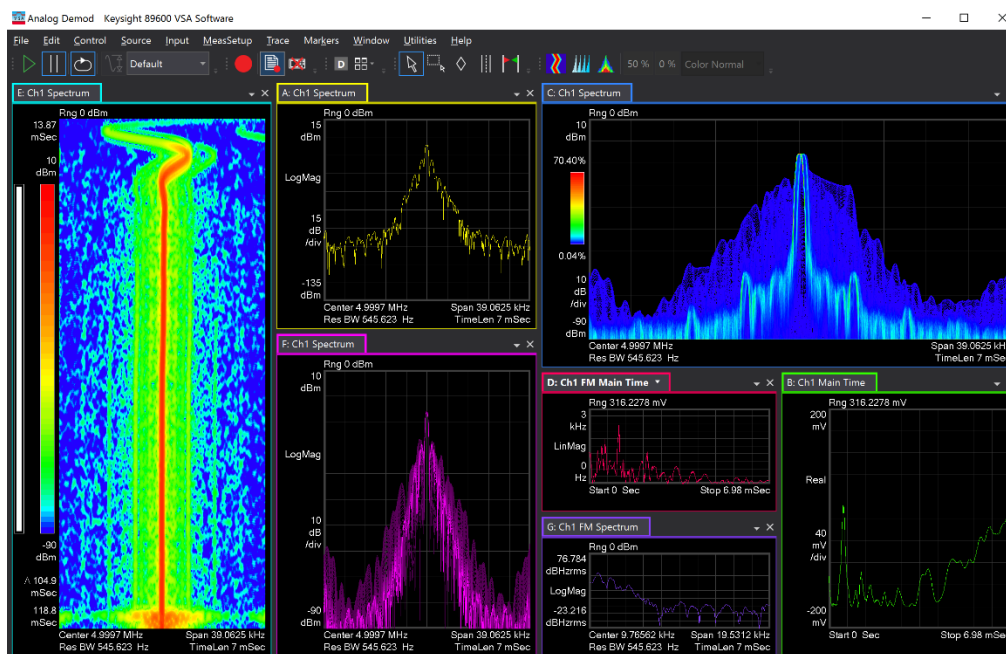
See Through the Complexity

Development becomes more complex when faster data rates intersect with today's crowded spectral environment. Finding a signal problem is essential—but achieving the clarity to pinpoint the answer is the crucial challenge. The 89600 VSA software is a comprehensive set of tools for demodulation and vector signal analysis. These tools enable you to explore virtually every facet of a signal and optimize your most advanced designs. As you assess the tradeoffs, the 89600 VSA helps you see through the complexity.

89600 VSA Software

Configure Your New 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 learn how to add any of these options after initial purchase.



Beginning with **Step 1**, determine the license type you need.



Step 1: Select Desired License Type and License Term

Table 1. License terms

License Term	Models (89601200C is required ¹ as an example)	Options
Perpetual	89601200C-1xP	Perpetual licenses can be used indefinitely.
Time-based	89601200C-1xF 89601200C-1xL 89601200C-1xX 89601200C-1xY	Time-based licenses can be used through the term of the license (F for 6 months, L for 12 months, X for 24 months, or Y for 36 months).

Table 2. License types

License Term	Models (89601200C is required ¹ as an example)	Description
Node-locked	89601200C-1Fx	License can be used on one specified instrument/computer.
Transportable	89601200C-1Tx	License can be used on one instrument/computer at a time but may be transferred to another using Keysight Software Manager (internet connection required).
USB Portable	89601200C-1Ux	License can be used on one instrument/computer at a time but can be transferred to another using a certified USB dongle (available for additional purchase, Keysight part number E8900-D10).
Floating	89601200C-1Nx 89601200C-1Rx 89601200C-1Wx	Networked instruments/computers can access a license from a server one at a time. Multiple licenses may be purchased for concurrent usage. Three types of floating license are available: Single Site : 1-mile radius from the server; Single Region ² : Americas; Europe; Asia; Worldwide (export restriction identified in End User License Agreement (EULA))

- Option 89601200C is required. It provides:
 - Basic time and spectrum measurements
 - Analog demodulation of AM, FM, PM signals
 - Analysis of imported data files
 - Links to Keysight EDA SystemVue and ADS
 - Connectivity to hardware platforms
 - Power spectrum with PXIe VSA M9393A/M9391A
- Americas (North, Central, and South America, Canada); Europe (European Continent, Middle Eastern Europe, Africa, India); Asia (North and South Asia Pacific Countries, China, Taiwan, Japan)



Did you know...

Connectivity to over 45 Keysight instrument platforms, is a standard feature of Basic VSA (Option 89601200C). For a complete list of hardware platforms, visit

www.keysight.com/find/89600_hardware.

Table 3. KeysightCare software support subscription

Subscription	Description
KeysightCare support subscription	Perpetual licenses are sold with a 12 (default), 24, 36, or 60-month software support subscription. Support subscriptions can be renewed for a fee after that.
	Time-based licenses already include a software support subscription through the term of the license.



Try Before You Buy!

Download the 89600 VSA software and use it free for 30 days. Visit www.keysight.com/find/89600_trial

Step 2: Add Other 89600 VSA Measurement Applications

Model	Description	Note
General purpose		
89601AYAC	Digital modulation analysis	<ul style="list-style-type: none"> Analysis of >40 modulation formats, including custom APSK and presets for communication formats like GSM/EDGE, ZigBee FSK, Bluetooth® BR, APCO25 and SOQPSK Proprietary and pre-standard, customized IQ constellation signals. TEDS modulation analysis Channel response measurements such as phase/magnitude response and multi-tone group delay.
89601BHFC	Custom OFDM modulation analysis	<ul style="list-style-type: none"> Proprietary and pre-standard OFDM formats such as WLAN, DAB, DVB-T/H, DVB-SH, ISDB-T and more...
Cellular communication		
89601BHNC	5G NR modulation analysis	<ul style="list-style-type: none"> 5G NR modulation analysis Pre-5G modulation analysis
89601BHGC	LTE/LTE-A FDD modulation analysis	<ul style="list-style-type: none"> LTE FDD modulation analysis LTE-Advanced FDD modulation analysis
89601BHHC	LTE/LTE-A TDD modulation analysis	<ul style="list-style-type: none"> LTE TDD modulation analysis LTE-Advanced TDD modulation analysis
89601B7NC	3G modulation analysis bundle	<ul style="list-style-type: none"> W-CDMA/HSPA+ modulation analysis TD-SCDMA/HSPA modulation analysis cdma2000 modulation analysis 1xEV-DO modulation analysis 1xEV-DV modulation analysis

Wireless Connectivity		
89601B7RC	Wireless connectivity modulation analysis	<ul style="list-style-type: none"> • WLAN 802.11a/b/g/j/p modulation analysis • WiMax modulation analysis
89601BHXC	High throughput WLAN modulation analysis	<ul style="list-style-type: none"> • WLAN 802.11n/ac modulation analysis • WLAN 802.11ax modulation analysis
89601BHTC	IoT modulation analysis	<ul style="list-style-type: none"> • NB-IoT modulation analysis • RFID modulation analysis • IEEE 802.15.4 UWB HRP
Radar Analysis		
89601BHQC	Pulse analysis	<ul style="list-style-type: none"> • Pulsed modulated radar signal analysis
89601BHPC	FMCW radar analysis	<ul style="list-style-type: none"> • For multi-chirp linear FM modulated signals or automotive radar
Other Standard Formats		
89601BHMC	DOCSIS modulation analysis	<ul style="list-style-type: none"> • DOCSIS3.1 downstream and upstream modulation analysis
89601301C	Multi-vendor hardware connectivity	<ul style="list-style-type: none"> • Connect multi-vendor hardware for modulation analysis

Configuration Example

In this example with 89601C, 5 people can use the 89601C VSA software at the same time because of quantity of 5 option 89601200C floating licenses have been purchased. This means that at any one time, two users can make LTE/LTE-A FDD measurements because two LTE/LTE-A FDD option 89601BHGC licenses have been purchased, one user can make 5G NR measurements because one 5G NR option 89601BHNC license has been purchased, and two more users can use 89601C VSA software to make basic time and spectrum measurements (without LTE/LTE-A FDD or 5G NR).

Model-License	Description	Quantity
89601200C-1NP	Basic vector signal analysis and hardware connectivity	5
89601BHGC-1NP	LTE/LTE-A FDD modulation analysis	2
89601BHNC-1NP	5G NR modulation analysis	1

Update and Subscription Service

Protect your software investment.

A 12-month subscription to 89601C VSA software must be included with each 89601200C initial purchase. You may also purchase additional KeysightCare support subscription at the time of initial purchase or after the initial purchase, to gain immediate access to the latest features and enhancements for the 89601C VSA software (2019 Update 1.0 or higher), after the initial 12-month subscription period expires. 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.

If you do not have the current version of the 89600 VSA software, check your license version (YYYY.MMDD) by selecting Utilities > Licenses... in the 89600 VSA software toolbar. Compare this to the license version required for the current version available at www.keysight.com/find/89600_updates.

If your license version is greater than or equal to the current license version, no new license is need. Simply download and install the new software version.

If your license version is lower than the current version, please contact Keysight to renew the 89601200C KeysightCare support subscription to update your software

If you own some legacy 89601B licenses, you can continue to use 89601C software with valid 89601B licenses or please use the Keysight software upgrade program to upgrade your 89601B licenses to the new 89061C license

www.keysight.com/find/upgrade_to_software_support



Upgrade your Existing Software

All 89600 VSA software options can be added after initial purchase and are license-key enabled. Some require the latest software version. To learn more and upgrade your software, visit

https://www.keysight.com/find/89600_upgrades

To determine if you already have a licensed measurement option: For transportable licenses, go to the 89600 VSA toolbar and select Utilities > Licenses... > Options. The options you have installed are indicated with a Yes.

For floating licenses, check with your network manager to determine the Option 89601200C quantity in your system.

Current License	Renew KeysightCare Support Subscription	Note
89601B-200	Upgrade to 89601200C license	Install base customer with 89601B-200 license can use the software upgrade program to upgrade their license from 89601B to 89601200C
89601200C	Extend 89601200C version date	Please contact Keysight to extend the 89601200C license version date
89601xxxC	Extend 89601xxxC feature license version date	Please contact Keysight to extend the 89601xxxC feature license version date

PC Requirements

Any laptop, desktop 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.

Operating system	Microsoft Windows 7 Professional, Enterprise or Ultimate (64-bit for 89600 version above v22.0) Microsoft Windows 10 Professional, or Enterprise or Educational (64-bit for 89600 version above v22.0) Linux (only for floating license with 89600 VSA version above v22.0)
CPU	1 GHz (>2 GHz recommended)
RAM	2 GB (16 GB recommended)
Video RAM	128 MB minimum (1 GB recommended)
Windows experience index	>5 (recommended)
Hard disk	3 GB minimum available
Additional drives	DVD or network access to load the software; license transfer requires network access or a USB memory stick
Interface support	LAN, GPIB, USB For USB portable license, a USB port is necessary for license activation with a dongle (USB hardware key).
Browser	Internet explorer v9.0 or higher required for more reliable context sensitive online help functionality

Floating License Server Requirements

The 89600 VSA floating license requires loading a vendor daemon on a license server. This server may be the same PC running the 89600 VSA software. Full installation instructions and support are provided for compatible server operating systems: Windows 7 Professional, Enterprise, Ultimate (64-bit); Microsoft Windows 8 Professional or Enterprise; Microsoft Windows 10 Professional or Enterprise (64-bit); or Linux (VSA version above v22.0)

Visit www.keysight.com/find/89600vsa

Upgrade your 89600 VSA software up to date (89601B to 89601C)

Keysight now launches the new 89600 VSA software as 89601C after September 2019 as version 2019 update 1.0, the existing 89601B customers can continue to use the new 89601C software with valid 89601B licenses or can visit the Keysight software upgrade webpage to fill in their current 89601B software license information and get a quote for upgrading from 89601B licenses to 89601C licenses.

https://upgrade.software.keysight.com/software_upgrade_form.html

Learn more at: www.keysight.com

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

