



Agilent E8267C PSG Vector Signal Generator

Configuration Guide



E8267C PSG vector signal generator



Agilent Technologies

This guide is intended to assist you with the ordering process of the PSG vector signal generators.

Standard product includes electronic manuals (CD-ROM), adapters, and US power cord.

High output power (Option 1EA) and step attenuator (Option 1E1) are standard features on the E8267C vector signal generator.

Agilent Microwave PSG Vector Signal Generator Options

Lowest phase noise

Narrow pulse modulation

Stimulus response capability with scalar network analyzer

Step 1. Choose type of signal generator with frequency range (mandatory)

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	E8267C-520	PSG vector signal generator 250 kHz to 20 GHz	Vector signal simulation to 20 GHz		

Step 2. Choose enhanced phase noise – Option UNR

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	E8267C-UNR	Enhanced close-in phase noise performance	User's application requires low close-in phase noise (i.e. -106 dBm typical at 1 kHz offset from 10 GHz) approximately 24 dB improvement over standard		

Step 3. Choose narrow pulse modulation - Option 1E6

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	E8267C-1E6	Provides narrow pulse modulation below 3.2 GHz. (Narrow pulse modulation above 3.2 GHz is standard with the instrument.)	Allows narrow pulses with rise & fall times of 10 ns from 10 MHz to the maximum frequency of the instrument		

Step 4. Choose ramp sweep – Option 007

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	E8267C-007	Provides a fully synthesized ramp (analog) sweep in frequency and amplitude	Network analysis requiring a swept source. Provides fully automated operation with the 8757D scalar network analyzer.		

Internal baseband generator

Step 5. Choose internal baseband generator with memory

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	E8267C-602	Internal baseband generator with 64 MSA memory, 80 MHz of RF modulation bandwidth	Used to produce arbitrary and real-time I/Q waveforms		
<input type="checkbox"/>	E8267C-005	6 GB internal hard drive	Used for non-volatile waveform storage		E8267C-602

Wide RF modulation bandwidth

Step 6. Choose wideband external I/Q- Option 015

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	E8267C-015	Wideband external I/Q inputs	Provides up to 1 GHz uncalibrated RF modulation bandwidth; standard external I/Q inputs provide 160 MHz RF modulation bandwidth		

Real-world signal simulation

Step 7. Choose Signal Studio software- (PC and spectrum analyzer required)

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	E8267C-408	Signal Studio for enhanced multitone signals	Generates multiple tone signals and applies predistortion techniques to remove the non-linear distortion of the signal generator. Requires PSA spectrum analyzer		E8267C-602 (mandatory) E8267C-UNR
<input type="checkbox"/>	E8267C-420	Signal Studio for pulse building	Used to generate customized pulse patterns for simulation. Requires PSA or ESA spectrum analyzer		E8267C-602 (mandatory) E8267C-1E6 E8267C-005 E8267C-UNR
<input type="checkbox"/>	E8267C-421	Signal Studio for noise power ratio (NPR)	Generates a simulated broadband noise signal to facilitate NPR measurements. Applies predistortion techniques to improve RF flatness and increase notch depth. Requires a PSA spectrum analyzer.		E8267C-602 (mandatory) E8267C-UNR

Accessory Options

Choose accessories or instrument connector configuration (not mandatory)

Note: Standard 20 GHz models have a 3.5 mm (m) RF output connector on the front panel.

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	E8267C-003	Enables digital output connectivity with N5102A		E8267C-002	E8267C-602 (mandatory)
<input type="checkbox"/>	E8267C-1ED	Type-N (f) connector			
<input type="checkbox"/>	E8267C-1EM	Moves all connectors to rear panel			
<input type="checkbox"/>	E8267C-1CM	Rack mount kit			
<input type="checkbox"/>	E8267C-1CN	Front handle kit			
<input type="checkbox"/>	E8267C-1CP	Rack mount kit with front handle kit			

Related Products

These related products enhance the capabilities of the PSG vector signal generator

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	83554A	Millimeter-wave source module R-band	Banded solution for extending frequency from 26.5 to 40 GHz		
<input type="checkbox"/>	83555A	Millimeter-wave source module Q-band	Banded solution for extending frequency from 33 to 50 GHz		
<input type="checkbox"/>	83556A	Millimeter-wave source module U-band	Banded solution for extending frequency from 40 to 60 GHz		
<input type="checkbox"/>	83557A	Millimeter-wave source module V-band	Banded solution for extending frequency from 50 to 75 GHz		
<input type="checkbox"/>	83558A	Millimeter-wave source module W-band	Banded solution for extending frequency from 75 to 110 GHz		
<input type="checkbox"/>	8120-8806	Master/slave interface cable			
<input type="checkbox"/>	9211-2656	Standard transit case			
<input type="checkbox"/>	9211-7481	Tote-style transit case (includes wheels and telescoping handles)			
<input type="checkbox"/>	N5101A	Baseband Studio PCI card	Enables Baseband Studio applications (fading and waveform streaming)	E8267C-002	E8267C-602 (mandatory)
<input type="checkbox"/>	N5110A	Baseband Studio for waveform streaming			N5110A-117 (mandatory) N5110A-125 (mandatory)
<input type="checkbox"/>	N5110A-117	Hard drive streaming BW to 1 MSa/s			
<input type="checkbox"/>	N5110A-118	Extends hard drive streaming BW from 1 to 5 MSa/s			
<input type="checkbox"/>	N5110A-119	Extends hard drive streaming BW from 5 to 10 MSa/s			
<input type="checkbox"/>	N5110A-120	Extends hard drive streaming BW from 10 to 20 MSa/s			

Related Products (continued)

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	N5110A-121	Extends hard drive streaming BW from 20 to 40 MSa/s			
<input type="checkbox"/>	N5110A-125	Enables streaming to an ESG or PSG signal generator			
<input type="checkbox"/>	N5102A	Baseband Studio digital signal interface module	Provides digital IQ and IF outputs		E8267C-003 (mandatory) E8267C-602 (mandatory)

Manuals

Choose manuals (not mandatory)

Standard products ship with electronic (CD-ROM) manuals. The CD-ROM includes user's guide, installation guide, programming guide, calibration guide, service guide, SCPI command reference guide, error messages, key reference guide, and additional product literature.

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	E8267C-ABA	English manual set (user's, programming and calibration) (hardcopy – no CD)			
<input type="checkbox"/>	E8267C-ABD	German localized user's guide (hardcopy – no CD)			
<input type="checkbox"/>	E8267C-ABF	French localized user's guide (hardcopy – no CD)			
<input type="checkbox"/>	E8267C-ABJ	Japanese localized user's guide (hardcopy – no CD)			
<input type="checkbox"/>	E8267C-AB2	Chinese (simplified) user's guide (hardcopy – no CD)			
<input type="checkbox"/>	E8267C-CD1	CD-ROM documentation (includes PDF files of user's guide, programming guide, calibration guide, service guide, SCPI command reference guide, error messages, key reference guide, and additional product literature)			
<input type="checkbox"/>	E8267C-OBW	Adds the service guide (assembly level)			
<input type="checkbox"/>	E8267C-UK6	Commercial calibration certificate with test data			

Choose documentation (not mandatory)

If you want to order PSG documentation separately

Selection ✓	Documentation part number	Title
<input type="checkbox"/>	E8251-90259	Service Guide
<input type="checkbox"/>	E8251-90251	User's Documentation on CD-ROM
<input type="checkbox"/>	E8251-90252	Installation Guide
<input type="checkbox"/>	E8251-90258	Calibration Guide
<input type="checkbox"/>	E8251-90253	User's Guide
<input type="checkbox"/>	E8251-90254	Key and Data Field Reference
<input type="checkbox"/>	E8251-90255	Programming Guide
<input type="checkbox"/>	E8251-90256	SCPI Command Reference
<input type="checkbox"/>	E8251-90257	Error Messages

Warranty, Service, and Calibration Options

Choose a warranty plan (not mandatory)

For warranty and service of 5 years, please order 60 months of R-51B (quantity = 60). Standard warranty is 36 months.

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	Standard	3-year return-to-Agilent warranty and service			
<input type="checkbox"/>	5 years	Extended return-to-Agilent warranty and service			

Choose a calibration plan ¹ (not mandatory)

There is no calibration plan standard with the E8267C. For a calibration plan, specify 3 or 5 years for one of the appropriate plans below when ordering. For more information on the plans, please visit www.agilent.com/find/services_upfront_options.

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	N/A	Agilent Calibration Upfront Plan			
<input type="checkbox"/>	N/A	Agilent Calibration Plus Upfront Plan			
<input type="checkbox"/>	N/A	Z540 Calibration Upfront Plan			

Upgradeable Options

If an option is not mentioned that you would like to have upgraded on your PSG (E8267/E8257/E8247C only), please contact your local Agilent representative about our customized upgradeable options.

Customer and service center installable upgrade kits for the E8267C signal generators To add upgradeable options to a model, use the following ordering scheme:

	Example
<Model #> K	E8267CK
<Model #> K - <option number>	E8267CK-007

Choose customer and service center installable upgrade kits ^{2,3}

Service center can install upgrade kits for an additional cost.

Please consult your local Agilent representative for further information.

Selection ✓	Upgradeable options	Upgrade kit will be sent to the customer for installation
<input type="checkbox"/>	E8267CK-007	Yes
<input type="checkbox"/>	E8267CK-015	Yes
<input type="checkbox"/>	E8267CK-408	Yes
<input type="checkbox"/>	E8267CK-420	Yes
<input type="checkbox"/>	E8267CK-421	Yes
<input type="checkbox"/>	E8267CK-602	Yes
<input type="checkbox"/>	E8267CK-003	Yes

1. Options not available in all countries.

2. Options orderable as customer and service center installable. Upgrade kits may also be ordered as factory upgradeable options.

3. Options 1E6, 1ED, 1EM, UNR, and 005 must be returned to the Agilent U.S. factory for an upgrade. These can not be upgraded by the customer.

Related Agilent Literature

PSG Signal Generator, brochure
Literature number 5988-7538EN

E8247C/57C PSG CW and Analog Signal Generator, data sheet
Literature number 5988-7454EN

E8267C PSG Vector Signal Generator, data sheet
Literature number 5988-6632EN

E8247C/57C PSG CW and Analog Signal Generator, configuration guide
Literature number 5988-7879EN

PSG Series: Millimeter Head, product note
Literature number 5988-2567EN

PSG Two-Tone and Multitone Personalities, application note 1410
Literature number 5988-7689EN

Signal Studio for Pulse Building, technical overview
Literature number 5988-8134EN

Signal Studio for Noise Power Ratio, technical overview
Literature number 5988-9161EN

Signal Studio for Enhanced Multitone, technical overview
Literature number 5988-5639EN

N5102A Baseband Studio Digital Signal Interface Module, technical overview
Literature number 5988-9495EN

N5110A Baseband Studio for Waveform Streaming, technical overview
Literature number 5988-9493EN

Digital Modulation in Communications Systems — An Introduction
application note 1298
Literature number 5965-7160E

Free Agilent software:

- Latest software and drivers for the PSG
 - Upgrade your PSG with the latest software enhancements
- PSG/ESG Download Assistant software
 - Download waveforms directly from the MATLAB® environment into the signal generator for playback
- Agilent IntuiLink connectivity software
 - Connectivity software solution that links test and measurement instrument data to PC applications

The above free software can be found by selecting the Software, Firmware, & Drivers embedded link located on each of the PSG E8267C, PSG E8257C or PSG E8247C (where applicable). For more information visit:

www.agilent.com/find/psg

For further information about renting, leasing, or financing Agilent's latest technology, visit

www.agilent.com/find/buyalternatives

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Agilent Technologies aims to maximize the value you receive, while minimizing your risk and problems. We strive to ensure that you get the test and measurement capabilities you paid for and obtain the support you need. Our extensive support resources and services can help you choose the right Agilent products for your applications and apply them successfully. Every instrument and system we sell has a global warranty. Support is available for at least five years beyond the production life of the product. Two concepts underlie Agilent's overall support policy: "Our Promise" and "Your Advantage."

Our Promise

Our Promise means your Agilent test and measurement equipment will meet its advertised performance and functionality. When you are choosing new equipment, we will help you with product information, including realistic performance specifications and practical recommendations from experienced test engineers. When you use Agilent equipment, we can verify that it works properly, help with product operation, and provide basic measurement assistance for the use of specified capabilities, at no extra cost upon request. Many self-help tools are available.

Your Advantage

Your Advantage means that Agilent offers a wide range of additional expert test and measurement services, which you can purchase according to your unique technical and business needs. Solve problems efficiently and gain a competitive edge by contracting with us for calibration, extra-cost upgrades, out-of-warranty repairs, and onsite education and training, as well as design, system integration, project management, and other professional engineering services. Experienced Agilent engineers and technicians worldwide can help you maximize your productivity, optimize the return on investment of your Agilent instruments and systems, and obtain dependable measurement accuracy for the life of those products.

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Other Asia Pacific

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tm_asia@agilent.com

Online Assistance:

www.agilent.com/find/assist

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