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 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

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

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
❏	E8267C-520	PSG vector signal generator 250 kHz to 20 GHz	Vector signal simulation to 20 GHz		

Lowest phase noise

Step 2. Choose enhanced phase noise – option UNR

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
❏	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		

Narrow pulse modulation

Step 3. Choose narrow pulse modulation - option 1E6

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
❏	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		

Stimulus response capability with scalar network analyzer

Step 4. Choose ramp sweep – option 007

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
❏	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)
❑	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		
❑	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)
❑	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)
❑	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
❑	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
❑	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 spectum 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)
❑	E8267C-003	Enables digital output connectivity with N5102A		E8267C-002	E8267C-602 (mandatory)
❑	E8267C-1ED	Type-N (f) connector			
❑	E8267C-1EM	Moves all connectors to rear panel			
❑	E8267C-1CM	Rack mount kit			
❑	E8267C-1CN	Front handle kit			
❑	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)
❑	83554A	Millimeter-wave source module R-band	Banded solution for extending frequency from 26.5 to 40 GHz		
❑	83555A	Millimeter-wave source module Q-band	Banded solution for extending frequency from 33 to 50 GHz		
❑	83556A	Millimeter-wave source module U-band	Banded solution for extending frequency from 40 to 60 GHz		
❑	83557A	Millimeter-wave source module V-band	Banded solution for extending frequency from 50 to 75 GHz		
❑	83558A	Millimeter-wave source module W-band	Banded solution for extending frequency from 75 to 110 GHz		
❑	8120-8806	Master/slave interface cable			
❑	N5101A	Baseband Studio PCI card	Enables Baseband Studio applications (fading and waveform streaming)	E8267C-002	E8267C-602 (mandatory)
❑	N5110A	Baseband Studio for waveform streaming			N5110A-120 (mandatory) N5110A-125 (mandatory)
❑	N5110A-120	Hard drive waveform streaming up to 20 MSa/s			
❑	N5110A-121	Extended hard drive streaming BW from 20 up to 40 MSa/s			
❑	N5110A-125	Signal generator hard drive streaming connectivity			
❑	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)
❑	E8267C-ABA	English manual set (users, programming and calibration) (hardcopy – no CD)			
❑	E8267C-ABD	German localized user's guide (hardcopy – no CD)			
❑	E8267C-ABF	French localized user's guide (hardcopy – no CD)			
❑	E8267C-ABJ	Japanese localized user's guide (hardcopy – no CD)			
❑	E8267C-AB2	Chinese (simplified) user's guide (hardcopy – no CD)			
❑	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)			
❑	E8267C-OBW	Adds the service guide (assembly level)			
❑	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
❑	E8251-90259	Service Guide
❑	E8251-90251	User's Documentation on CD-ROM
❑	E8251-90252	Installation Guide
❑	E8251-90258	Calibration Guide
❑	E8251-90253	User's Guide
❑	E8251-90254	Key and Data Field Reference
❑	E8251-90255	Programming Guide
❑	E8251-90256	SCPI Command Reference
❑	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)
❑	Standard	3-year return-to-Agilent warranty and service			
❑	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)
❑	N/A	Agilent Calibration Upfront Plan			
❑	N/A	Agilent Calibration Plus Upfront Plan			
❑	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 futher information.

Selection ✓	Upgradeable options	Upgrade kit will be sent to the customer for installation
❑	E8267CK-007	Yes
❑	E8267CK-015	Yes
❑	E8267CK-408	Yes
❑	E8267CK-420	Yes
❑	E8267CK-421	Yes
❑	E8267CK-602	Yes
❑	E8267CK-003	Yes

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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 and/or financing Agilent's latest technology, visit

www.agilent.com/find/buyalternatives

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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.

Agilent T&M Software and Connectivity
Agilent's Test and Measurement software and connectivity products, solutions and developer network allows you to take time out of connecting your instruments to your computer with tools based on PC standards, so you can focus on your tasks, not on your connections. Visit
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(fax) (31 20) 547 2390
Japan:
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(fax) (81) 426 56 7840

Korea:
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(fax) (82 2) 2004 5115
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(fax) (305) 269 7599
Taiwan:
(tel) 0800 047 866
(fax) 0800 286 331
Other Asia Pacific Countries:
(tel) (65) 6375 8100
(fax) (65) 6836 0252
Email:
tm_asia@agilent.com

Online Assistance:
www.agilent.com/find/assist

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