



# 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

### Low 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<sup>1</sup> is 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 a PSA spectrum analyzer		E8267C-602 (mandatory) E8267C-UNR
<input type="checkbox"/>	E8267C-417	Signal Studio for 802.11 WLAN	Generates the communication signals required for the 802.11a, 802.11b, and 802.11g WLAN standards		E8267C-602 (mandatory)
<input type="checkbox"/>	E8267C-420	Signal Studio for pulse building	Used to generate customized pulse patterns for simulation. Requires a 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

1. GPIB or LAN capability is required to communicate with the signal generator.

## 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 (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"/>	E8251-90253	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 <sup>1</sup> (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](http://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.

### Choose customer installable upgrade kits

Upgrade kit will be sent to the customer for installation.

Service center can install upgrade kits for an additional cost.

Please consult your local Agilent representative for further information.

Selection ✓	Upgradeable options	Description
<input type="checkbox"/>	E8267CK-007	Analog Ramp Sweep
<input type="checkbox"/>	E8267CK-015	Wideband external I/Q inputs
<input type="checkbox"/>	E8267CK-408	Signal Studio for enhanced multitone
<input type="checkbox"/>	E8267CK-420	Signal Studio for pulse building
<input type="checkbox"/>	E8267CK-421	Signal Studio for noise power ratio
<input type="checkbox"/>	E8267CK-602	Internal baseband generator, 64 MSa memory
<input type="checkbox"/>	E8267CK-003	PSG digital output connectivity with N5102A
<input type="checkbox"/>	E8267CK-004	PSG digital input connectivity with N5102A
<input type="checkbox"/>	E8267CK-417	Signal Studio for WLAN

1. Options not available in all countries.

## 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](http://www.agilent.com/find/psg)**

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