



# Agilent E8247/E8257C PSG CW and Analog Signal Generators

## Configuration Guide



E8257C PSG analog signal generator



## Agilent Microwave PSG CW/Analog signal generators options

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

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	E8247C-520	PSG CW 250 kHz to 20 GHz	Provides an unmodulated continuous wave signal (can be used as a LO substitute)		
<input type="checkbox"/>	E8257C-520	PSG analog 250 kHz to 20 GHz	Provides flexible analog modulation		
<input type="checkbox"/>	E8247C-540	PSG CW 250 kHz to 40 GHz	Provides an unmodulated continuous wave signal (can be used as a LO substitute)		
<input type="checkbox"/>	E8257C-540	PSG analog 250 kHz to 40 GHz	Provides flexible analog modulation		

## Dynamic range

### Step 2. Choose a step attenuator – option 1E1 (Not mandatory)

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	E8247C-1E1	Adds output step attenuator down to -135 dBm	User's application requires power level below -20 dBm (standard)		
<input type="checkbox"/>	E8257C-1E1	Adds output step attenuator down to -135 dBm	User's application requires power level below -20 dBm (standard)		

## Highest output power

### Step 3. Choose high output power - option 1EA (Not mandatory)

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	E8247C-1EA	High RF output power	Provides +20 dBm RF output power at 20 GHz (typically +25 dBm) which eliminates the need for external amplifiers		
<input type="checkbox"/>	E8257C-1EA	High RF output power	Provides +20 dBm RF output power at 20 GHz (typically +25 dBm) which eliminates the need for external amplifiers		

## Lowest phase noise

### Step 4. Choose enhanced phase noise – option UNR (Not mandatory)

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	E8247C-UNR	Enhanced phase noise performance	User's application requires low close-in phase noise (i.e. -106 dBm (typical) at 1 kHz offset from 10 GHz carrier) approximately 24 dB improvement over standard		
<input type="checkbox"/>	E8257C-UNR	Enhanced phase noise performance	User's application requires low close-in phase noise (i.e. -106 dBm (typical) at 1 kHz offset from 10 GHz carrier) approximately 24 dB improvement over standard		

## Narrow pulse modulation

### Step 5. Choose narrow pulse modulation - option 1E6 (Not mandatory)

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	E8257C-1E6	Provides narrow pulse modulation >500 MHz	Allows narrow pulses with fast rise & fall times of 10 ns from 500 MHz to the maximum frequency of the instrument		

## Stimulus response capability with scalar network analyzer

### Step 6. Choose ramp sweep – option 007 (Not mandatory)

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	E8247C-007	Provides ramp sweep, scalar interface, Z-axis blanking, and markers	User's application requires stimulus response and utilizes 8757D scalar network analyzer		
<input type="checkbox"/>	E8257C-007	Provides ramp sweep, scalar interface, Z-axis blanking, and markers	User's application requires stimulus response and utilizes 8757D scalar network analyzer		

## 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.

Standard 40 GHz models have a 2.4 mm (m) RF output connector on the front panel.

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	E8247C-1ED	Type-N (f) connector		E8247C-540	
<input type="checkbox"/>	E8257C-1ED	Type-N (f) connector		E8257C-540	
<input type="checkbox"/>	E8247C-1EM	Move all connectors to rear panel			
<input type="checkbox"/>	E8257C-1EM	Move all connectors to rear panel			
<input type="checkbox"/>	E8247C-1CM	Rack mount kit			
<input type="checkbox"/>	E8257C-1CM	Rack mount kit			
<input type="checkbox"/>	E8247C-1CN	Front handle kit			
<input type="checkbox"/>	E8257C-1CN	Front handle kit			
<input type="checkbox"/>	E8247C-1CP	Rack mount kit with front handle kit			
<input type="checkbox"/>	E8257C-1CP	Rack mount kit with front handle kit			
<input type="checkbox"/>	83554A	Millimeter-wave source module R-band	Banded solution for extending frequency from 26.5 to 40 GHz		E8247C-1EA or E8257C-1EA
<input type="checkbox"/>	83555A	Millimeter-wave source module Q-band	Banded solution for extending frequency from 33 to 50 GHz		E8247C-1EA or E8257C-1EA
<input type="checkbox"/>	83556A	Millimeter-wave source module U-band	Banded solution for extending frequency from 40 to 60 GHz		E8247C-1EA or E8257C-1EA
<input type="checkbox"/>	83557A	Millimeter-wave source module V-band	Banded solution for extending frequency from 50 to 75 GHz		E8247C-1EA or E8257C-1EA
<input type="checkbox"/>	83558A	Millimeter-wave source module W-band	Banded solution for extending frequency from 75 to 110 GHz		E8247C-1EA or E8257C-1EA
<input type="checkbox"/>	8120-8806	Master/slave interface cable			

To add options to a product, use the following ordering scheme:

**Model:** E82x7C, where x = 4 or 5

**Example model options:** Option E8247C-520  
Option E8257C-520

## Manuals

### Choose manuals (Not mandatory)

Standard products ship with electronic (CD-ROM) manuals. The CD-ROM includes a user's guide, programming and calibration guides, Intuilink and other product literature.

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	E82x7C-ABA	English manual set (users, programming and calibration) (hardcopy – no CD)			
<input type="checkbox"/>	E82x7C-ABD	German localized supplemental user's guide (hardcopy – no CD)			
<input type="checkbox"/>	E82x7C-ABF	French localized supplemental user's guide (hardcopy – no CD)			
<input type="checkbox"/>	E82x7C-ABJ	Japanese localized supplemental user's guide (hardcopy – no CD)			
<input type="checkbox"/>	E82x7C-ABA	Korean localized supplemental user's guide (hardcopy – no CD)			
<input type="checkbox"/>	E82x7C-CD1	CD-ROM documentation includes PDF files of user's guide, calibration guide, service guide, SCPI command reference guide, error messages, key reference guide, and additional product literature)			
<input type="checkbox"/>	E82x7C-OBW	Adds the service manual (assembly level)			
<input type="checkbox"/>	E82x7C-UK6	Commercial calibration certificate with test data			

### Choose documentation (Not mandatory)

If you want to order the PSG's 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)

Selection ✓	Ordering number	Description	Purpose	Not compatible	Recommended option(s)
<input type="checkbox"/>	Standard	1-year return-to-Agilent warranty and service			
<input type="checkbox"/>	3 years	Extended 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.

### Factory upgradeable options for the E8247C or E8257C signal generators.

To add upgradeable options to a model, use the following ordering scheme:

	Example
Model # F	E8247CF
Model # - option number	E8247C-1E1
Model # - option number	E8247C-1EA

### Choose factory upgradeable options (Not mandatory)

Selection ✓	Upgradeable options	Send instrument back to the factory for upgrade
<input type="checkbox"/>	E8247CF-1E1	Yes
<input type="checkbox"/>	E8257CF-1E1	Yes
<input type="checkbox"/>	E8257CF-1E6	Yes
<input type="checkbox"/>	E8247CF-1EA	Yes
<input type="checkbox"/>	E8257CF-1EA	Yes
<input type="checkbox"/>	E8247CF-1ED	Yes
<input type="checkbox"/>	E8257CF-1ED	Yes
<input type="checkbox"/>	E8247CF-1EM	Yes
<input type="checkbox"/>	E8257CF-1EM	Yes
<input type="checkbox"/>	E8247CF-UNR	Yes
<input type="checkbox"/>	E8257CF-UNR	Yes
<input type="checkbox"/>	E8247CF-007	Yes
<input type="checkbox"/>	E8257CF-007	Yes

### Customer and service center installable upgrade kits for the E8247C and E8257C signal generators. To add upgradeable options to a model, use the following ordering scheme:

	Example
Model # K	E8257CK
Model # - option number	E8257C-1E1
Model # - option number	E8257C-1EA

### Choose customer and service center installable upgrade kits (Not mandatory)

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"/>	E8247CF-1EA	Yes
<input type="checkbox"/>	E8257CF-1EA	Yes
<input type="checkbox"/>	E8247CF-1E1 <sup>2</sup>	Yes
<input type="checkbox"/>	E8257CF-1E1 <sup>2</sup>	Yes
<input type="checkbox"/>	E8247CF-007	Yes
<input type="checkbox"/>	E8257CF-007	Yes

1. Options not available in all countries.

2. User needs calibration capability when installing option 1E1. The factory and service centers have this capability.

## Related Agilent literature

*PSG Signal Generator Brochure*  
Literature number 5988-7538EN

*Agilent E8247/57C*  
*PSG CW and Analog Signal Generator Data Sheet*  
Literature number 5988-7454EN

*Agilent E8267C*  
*PSG Vector Signal Generator Data Sheet*  
Literature number 5988-6632EN

*Agilent E8267C*  
*PSG Vector Signal Generator*  
Configuration Guide  
Literature number 5988-7541EN

*PSG Series Product Note: Millimeter Head*  
Literature number 5988-2567EN

*PSG Two-tone and Multi-tone Application Note*  
Application Note 1410  
Literature number 5988-7689EN

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Free Agilent software:

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  - 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:

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