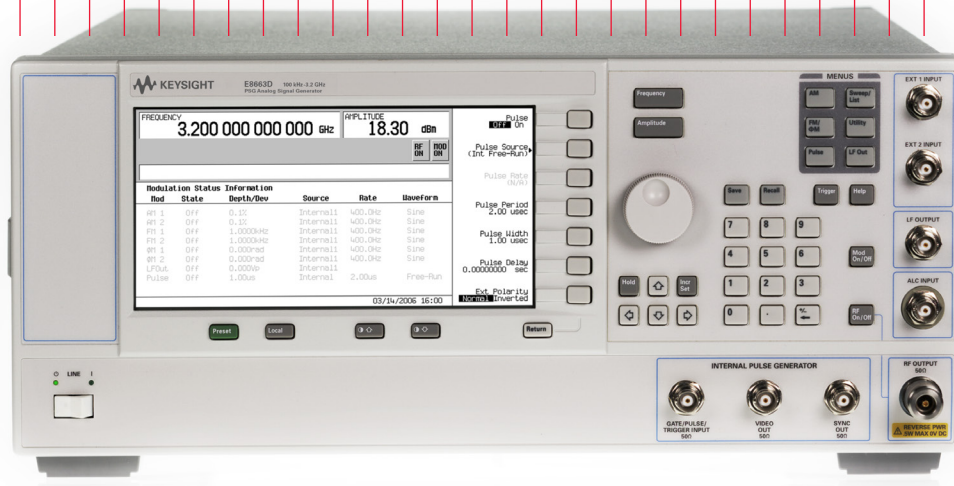


# Keysight Technologies

## E8663D PSG RF

### Analog Signal Generator

## Configuration Guide



This guide assists in the ordering process for the E8663D PSG RF analog signal generator.



**You Can Upgrade!**  
Options can be added after initial purchase.

**Standard product includes installation guide, electronic documentation set (CD-ROM), adapters, and country specific power cord.**

## Keysight PSG RF Analog Signal Generator Options

Step 1. Choose a frequency range (required)

Ordering number	Description	Purpose
E8663D-503	Frequency range from 100 kHz to 3.2 GHz	Selects the maximum frequency of the signal generator
E8663D-509	Frequency range from 100 kHz to 9.0 GHz	Selects the maximum frequency of the signal generator

Step 2. Choose order convenience bundle

Ordering number	Description	Purpose	Requires
E8663D-063	E8663B backwards compatibility option bundle - 1EU, 1E1, 1EH, UNX, UNT	Provides all the same options included in the E8663B	

Step 3. Choose modulation

Ordering number	Description	Purpose	Requires
Standard	CW and pulse modulation	Generates continuous wave (CW) signals and pulse modulation (150 ns minimum pulse width)	
E8663D-UNT	AM, FM, phase modulation, and LF output	Adds analog modulated signals	
E8663D-UNW	Narrow pulse modulation	Generates pulse modulated signals (20 ns minimum pulse width)	
E8663D-1SM <sup>1</sup>	Scan modulation	Provides deep AM modulation	E8663D-UNT

Step 4. Choose attenuator

Ordering number	Description	Purpose
Standard	No step attenuator	Generates signals with output power levels ranging from -20 dBm to maximum power
E8663D-1E1	Step attenuator	Generates signals with output power levels ranging from -135 dBm to the maximum power

Step 5. Choose high output power

Ordering number	Description	Purpose
Standard	Standard output power	Generates maximum RF output power of +15 dBm
E8663D-1EU	High output power	Generates maximum RF output power of +21 dBm

<sup>1</sup> E8663D-1SM is not compatible with E8663D-1EM (rear panel connectors).

## Step 6. Choose spectral purity

Ordering number	Description	Purpose
Standard	Standard spectral purity	Provides low phase noise
E8663D-UNX <sup>1</sup>	Ultra-low phase noise performance	Improves phase noise performance close-to-carrier
E8663D-UNY <sup>1</sup>	Enhanced ultra-low phase noise	Improves phase noise for carrier offsets from 1 Hz to 300 kHz
E8663D-1EH	Improved harmonics below 2 GHz	Improves harmonic performance for carrier frequencies < 2 GHz

## Step 7. Choose ramp sweep

Ordering number	Description	Purpose
E8663D-007	Analog ramp sweep	Generates fully synthesized ramp (analog) sweep

## Step 8. Choose instrument security

Ordering number	Description	Purpose
E8663D-008	Removable flash memory	Provides 8 GB of removable compact flash memory; all user-accessible files are located on this memory card

## Step 9. Choose custom options <sup>2</sup>

Custom options add unique capabilities to the signal generator for specific applications.

Ordering number	Description	Purpose	Requires
E8663D-H1S	Provides 1 GHz IN and OUT on rear panel to improve phase noise	Enables use of an external frequency reference to improve spectral purity	E8663D-UNX or E8663D-UNY

## Step 10. Choose instrument accessories and connector

Ordering number	Description	Purpose
Standard with every E8663D	Type-N (f) RF output connector	Type-N (m) to 3.5 mm (f) adapter is included
E8663D-1CM	Rack mount flange kit	Provides flange kit to mount the signal generator into a standard EIA 19" rack
E8663D-1CN	Front handle kit	Provides front handles for carrying instrument (not for rack mount)
E8663D-1CP	Rackmount kit with front handles	Provides flange handles and a flange to mount the signal generator into a standard EIA 19" rack
E8663D-1CR	Rack slide kit	Provides a non-tilting rack slide kit
E8663B-1EM <sup>3</sup>	Moves all front panel connectors to the rear panel	Simplifies cable management in rack mount environments

1. E8663D-UNX and E8663D-UNY are mutually exclusive. Choose one or the other or neither.

2. All specified performance attributes of custom options are tested at 25 °C ( $\pm 3$  °C) unless otherwise noted. For more information, contact Keysight Technologies.

3. Not compatible with Option 1SM (scan modulation).

Step 11. Choose documentation

Ordering number	Description
E8663D-CD1	CD-ROM containing the English documentation set
E8663D-ABA	Printed copy of the English documentation set
E8663D-0BW	Printed copy of the E8663D assembly-level service guide

Step 12. Choose a warranty plan

Ordering number	Description
Included	Warranty Assurance Plan, Return to Keysight, 3 years, standard
R-51B-001-5C	Warranty Assurance Plan, Return to Keysight, 5 years

Step 13. Choose a calibration plan

Ordering number	Description
E8663D-UK6	Commercial calibration certificate and test data
E8663D-A6J	ANSI Z540-1-1994 calibration
E8663D-AMG	Keysight Cal + Uncertainties + Guardbanding (accredited cal)
R-50C-011-3	Calibration Assurance Plan, Return-to-Keysight, 3 years
R-50C-011-5	Calibration Assurance Plan, Return-to-Keysight, 5 years
R-50C-016-3	Keysight Calibration + Uncertainties + Guardbanding, 3 years
R-50C-016-5	Keysight Calibration + Uncertainties + Guardbanding, 5 years
R-50C-021-3	ANSI Z540-1-1994 Calibration, 3 years
R-50C-021-5	ANSI Z540-1-1994 Calibration, 5 years

Step 14. Choose start-up assistance options

Ordering number	Description
PS-S10	Remote scheduled assistance 1-999 hours
PS-S20	Start-up assistance
PS-T10-ASG	Signal generator and source basics; 0.5 day (H7215B-165), max. 8 students on site
PS-X10	Custom services to be qualified by Keysight

## Upgradeable Options

For complete upgrade details, including firmware, visit: [www.keysight.com/find/E8663D\\_upgrade\\_table](http://www.keysight.com/find/E8663D_upgrade_table)

Customer-installable and service center-installable upgrade kits are available for the E8663D PSG signal generator. If an option is not mentioned that you would like to have upgraded on your PSG, please contact your local Keysight representative about our customized upgradeable options.

Ordering number	Description	Upgrade Contents	Additional requirements	Incompatible with
E8663DU-UNW	Narrow pulse modulation	License key	None	None
E8663DU-1EU	High output power	License key	None	None
E8663DU-007	Analog ramp sweep	License key	None	None
E8663DU-008	Removable flash memory	License key and hardware	None	None
E8663DU-1EH	Improved harmonics below 2 GHz	License key	None	None
E8663DU-UNT	AM, FM, phase modulation, and LF output	License key	None	None
E8663DU-1E1	Adds a step attenuator to provide calibrated minimum output power levels of -135 dBm while maintaining superior level accuracy	License key and hardware	None	None
E8663DU-R2C	Core instrument firmware enhancements	License key	None	None
E8663DU-UNX	Adds ultra-low phase noise performance	License key and hardware	None	None
E8663DU-UNY 1	Adds enhanced ultra-low phase noise performance	License key and hardware	S/N ≥ 5042	S/N < 5042
E8663DU-2NY 2	Adds enhanced ultra-low phase noise performance	License key and hardware	S/N < 5042	S/N ≥ 5042

1. Keysight service center installation only.

2. Keysight factory installation only. Requires an additional factory installation and calibration charge (E8663DU-700).

## Web Resources

For additional product information, visit:  
[www.keysight.com/find/psg](http://www.keysight.com/find/psg)

For information about renting, leasing or financing Keysight's latest technology, visit:  
[www.keysight.com/find/buyalternatives](http://www.keysight.com/find/buyalternatives)

For accessory information, visit:  
[www.keysight.com/find/accessories](http://www.keysight.com/find/accessories)

## Related Keysight Literature

*Keysight PSG Microwave Signal Generators Brochure, Literature number 5989-1324EN*

*E8257D PSG Microwave Analog Signal Generator Data Sheet, Literature number 5989-0698EN  
Configuration Guide, Literature number 5989-1325EN*

*E8267D PSG Microwave Vector Signal Generator Data Sheet, Literature number 5989-0697EN  
Configuration Guide, Literature number 5989-1326EN*

*E8663D PSG RF Analog Signal Generator Data Sheet, Literature number 5990-4136EN*

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[www.lxistandard.org](http://www.lxistandard.org)

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[www.pxisa.org](http://www.pxisa.org)

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**Three-Year Warranty**

[www.keysight.com/find/ThreeYearWarranty](http://www.keysight.com/find/ThreeYearWarranty)

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[www.keysight.com/find/channelpartners](http://www.keysight.com/find/channelpartners)

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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](http://www.keysight.com/find/contactus)

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Canada	(877) 894 4414
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Mexico	001 800 254 2440
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**Asia Pacific**

Australia	1 800 629 485
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Hong Kong	800 938 693
India	1 800 112 929
Japan	0120 (421) 345
Korea	080 769 0800
Malaysia	1 800 888 848
Singapore	1 800 375 8100
Taiwan	0800 047 866
Other AP Countries	(65) 6375 8100

**Europe & Middle East**

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Finland	0800 523252
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Germany	0800 6270999
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Luxembourg	+32 800 58580
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