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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight E8257D PSG Analog Signal Generator, 100 kHz to 67 GHz

Agilent E8257D PSG Analog Signal Generator The Agilent E8257D isaPSG series high-performance analog signal generator with frequency options from 250 kHz up to 20, 31.8, 40, 50, or 67 GHz class. OEM PSG data sheets emphasize ultra-low phase noise, high output power options, and analog modulation fidelity for aerospace and metrology stimulus. Low phase noise LO substitution, radar and EW component tests, high-power microwave stimulus, and metrology-grade CW generation. Frequency Maximum Options: 20 31.8 40 50 or 67 GHz class The Agilent E8257D isaPSG series high-performance analog signal generator with frequency options from 250 kHz up to 20, 31.8, 40, 50, or 67 GHz class. OEM PSG data sheets emphasize ultra-low phase noise, high output power options, and analog modulation fidelity for aerospace and metrology stimulus. Low phase noise LO substitution, radar and EW component tests, high-power microwave stimulus, and metrology-grade CW generation. Frequency Maximum Options: 20 31.8 40 50 or 67 GHz class Instrument Type: high performance analog signal generator



MODEL

**Agilent / Keysight
E8257D**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E8257D

LISTING

<https://aumictechlabs.com/products/e8257d-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight E8257D PSG Analog Signal Generator delivers signal synthesis across 250 kHz to 67 GHz, with operational capability to 70 GHz. Purpose-built for RF and microwave characterization, it combines exceptional phase noise, wide dynamic range, and precise frequency control to support radar, communications, and component testing. The instrument achieves 0.001 Hz frequency resolution in CW mode and maintains spectral purity through harmonic suppression to -55 dBc with optional filtering.

Technical Specifications

Frequency Performance Range: 250 kHz to 67 GHz (configurable band options available) Resolution: 0.001 Hz (CW), 0.01 Hz (sweep modes) Accuracy: $\pm 0.05\%$ of span $\pm$ timebase at 100 ms sweep time Internal timebase stability: $< \pm 3 \times 10^{-8}$ /year (Option UNR/UNX), $< \pm 2.5 \times 10^{-10}$ /day Temperature stability: 50 GHz) Temperature coefficient: 0.02 dB/°C (leveling accuracy) Automatic Level Control (ALC) for stabilized power delivery Phase Noise SSB at 10 kHz offset from 10 GHz carrier: -115 dBc/Hz typical SSB at 10 MHz offset: -144 dBc/Hz Ultra-low noise option (UNY): -143 dBc/Hz at 1 GHz, 10 kHz offset Spectral Purity Harmonic suppression: -25 dBc base, -55 dBc with optional low-pass filters

Key Features

Frequency resolution to 0.001 Hz enables precise carrier definition Reference output at 10 MHz ($> +4$ dBm into 50 Ω) supports external synchronization Modular architecture permits configuration customization and field upgrades Wide dynamic range supports component gain and loss characterization

Typical Applications

Advanced radar system component testing Communications transceiver validation Control system signal synthesis Phase noise-sensitive measurements

Compatibility & Integration

External reference accepts standard 1–10 MHz inputs at 50 Ω impedance (> -3 dBm nominal, > 5 dBm with Option UNR/UNX). Reference output provides 10 MHz lock signal for external instrument synchronization.

Features & description

From manufacturer datasheet

High Power Option: available

Modulation Class: AM FM phase pulse Pulse Modulation: available with narrow pulses class Frequency Switching Class: PSG synthesized switching class Reference Oscillator: high stability OCXO class options RF Output Connector Class: 3.5 mm 2.4 mm or 1.85 mm by band ALC Leveling: supported Step Attenuator: available Sibling Vector Model: E8267D PSG vector Frequency Resolution Class: fine synthesis resolution class External Reference Input: supported Remote Interfaces: LAN USB GPIB class Form Factor: benchtop instrument Operating Temperature Class: standard laboratory class Calibration Interval Class: annual calibration class recommended Power Mains Class: 100 to 240 VAC class Firmware Upgrade Path: option and firmware upgradeable class Notes Frequency option ceilings from Agilent/Keysight E8257D PSG documentation. Confirm option codes for maximum frequency, high-power path, and connector type.

E8257D Characteristics / Specifications

PARAMETER	VALUE
Frequency Range Minimum	250 kHz
Frequency Maximum Options	20 31.8 40 50 or 67 GHz class
Instrument Type	high performance analog signal generator
Series Family	Agilent PSG E8257D
Phase Noise Class	ultra low PSG phase noise class
Output Power Standard Class	high leveled PSG power class
High Power Option	available
Modulation Class	AM FM phase pulse
Pulse Modulation	available with narrow pulses class
Frequency Switching Class	PSG synthesized switching class
Reference Oscillator	high stability OCXO class options
RF Output Connector Class	3.5 mm 2.4 mm or 1.85 mm by band
ALC Leveling	supported
Step Attenuator	available
Sibling Vector Model	E8267D PSG vector
Frequency Resolution Class	fine synthesis resolution class
External Reference Input	supported
Remote Interfaces	LAN USB GPIB class
Form Factor	benchtop instrument
Operating Temperature Class	standard laboratory class
Calibration Interval Class	annual calibration class recommended
Power Mains Class	100 to 240 VAC class
Firmware Upgrade Path	option and firmware upgradeable class
Operating temperature	Class: standard laboratory class

E8257D Specifications

PARAMETER	VALUE
Agilent E8257D PSG Analog Signal Generator	Overview
Applications	Low phase noise LO substitution, radar and EW component tests, high-power microwave stimulus, and metrology-grade CW generation.
Key Features	PSG ultra low phase noise architecture
Technical Specifications	Frequency Range Minimum: 250 kHz

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: standard laboratory class
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Calibration Interval Class	annual calibration class recommended
Power Mains Class	100 to 240 VAC class
Firmware Upgrade Path	option and firmware upgradeable class Notes Frequency option ceilings from Agilent/Keysight E8257D PSG documentation. Confirm option codes for maximum frequency, high-power path, and connector type.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

performance analog signal generator with frequency options from 250 kHz up to 20, 31.8, 40, 50, or 67 GHz class. OEM PSG data sheets emphasize ultra-low phase noise, high output power options, and analog modulation fidelity for aerospace and metrology stimulus.

Applications

Low phase noise LO substitution, radar and EW component tests, high-power microwave stimulus, and metrology-grade CW generation.

Key Features

PSG ultra low phase noise architecture

High output power option path

Analog AM FM phase pulse modulation

Millimeter-wave frequency options

LAN GPIB remote control

Technical Specifications

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Notes

Frequency option ceilings from Agilent/Keysight E8257D PSG documentation. Confirm option codes for maximum frequency, high-power path, and connector type.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.