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Data Sheet

August 13, 2026

AGILENT

Agilent E4425B ESG-AP Series Analog RF Signal Generator, 3 GHz

Agilent E4425B ESG-AP Analog RF Signal Generator 250 kHz to 3 GHz The Agilent E4425B is an ESG-AP series analog RF signal generator covering 250 kHz to 3 GHz with high spectral purity, AM/FM/phase/pulse modulation, electronic or mechanical attenuator choices, and step/list sweep. It targets receiver test, component test, and LO applications needing excellent phase noise. The Agilent E4425B is an ESG-AP series analog RF signal generator covering 250 kHz to 3 GHz with high spectral purity, AM/FM/phase/pulse modulation, electronic or mechanical attenuator choices, and step/list sweep. It targets receiver test, component test, and LO applications needing excellent phase noise.



MODEL

Agilent E4425B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

E4425B

LISTING

<https://aumictechlabs.com/products/e4425b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent E4425B ESG-AP Series is an analog RF signal generator delivering precise signal generation from 250 kHz to 3 GHz with 0.01 Hz resolution. Built for receiver testing, component characterization, and local oscillator applications across telecommunications, aerospace, and research environments, this instrument combines exceptional spectral purity with flexible modulation capabilities. Technical Specifications Frequency Performance Frequency range: 250

kHz to 3 GHz Resolution: 0.01 Hz Accuracy: Matched to timebase accuracy Output Power
Maximum output level: +7 dBm Minimum output level: -120 dBm Attenuator selection: Electronic or
mechanical Spectral PuritySSB phase noise at 20 kHz offset: 500 MHz: < -134 dBc/Hz 1 GHz: < -
130 dBc/Hz 2 GHz: < -123 dBc/Hz 3 GHz: < -120 dBc/Hz Residual FM (CCITT weighting): 0.5 GHz:
< 0.5 Hz 1 GHz: < 1 Hz 2 GHz: < 2 Hz 3 GHz: < 3 Hz Modulation Capabilities Modulation types:
AM, FM, phase modulation, pulse modulation Internal modulation source with built-in function
generator Wideband FM and phase modulation support Sweep ModesStep sweep functionality for
frequency, power, and list operations.Key Features Superior level accuracy and stability across
the output range Outstanding phase-noise performance enabling demanding receiver
measurements Flexible architecture with upgrade options for evolving test requirements Internal
arbitrary waveform generation and bit error rate analysis availableTypical Applications Receiver
sensitivity and selectivity testing RF component characterization Local oscillator signal sourcing
Digital modulation standards testing via optional I/Q baseband generator TETRA, CDMA, and W-
CDMA adjacent channel power measurementsCompatibility & Integration Available mechanical
options include rack mount (1CM), front handles (1CN), rack with handles (1CP), and rear panel
connectors (1EM). Optional modules support high-stability timebase, pulse modulation
enhancement, and dual arbitrary waveform generation.

Features & description

From manufacturer datasheet

Features

- ESG-AP high spectral purity analog architecture • Frequency coverage 250 kHz to 3 GHz • Frequency resolution 0.01 Hz • Wideband FM and phase modulation plus AM and pulse • Choice of electronic or mechanical attenuator • Built-in function generator and step sweep • Optional high stability timebase Option 1E5

Applications

- Analog receiver and communications system testing • High spectral purity LO substitution to 3 GHz • Component stimulus with superior level accuracy • Automated step and list sweep ATE

E4425B Characteristics / Specifications

PARAMETER	VALUE
Model	E4425B
Manufacturer	Agilent / Keysight
Instrument Type	Analog RF Signal Generator
Alias	E4425B; ESG-AP; Agilent E4425B
Frequency range	250 kHz to 3 GHz
Frequency resolution	0.01 Hz
Frequency switching time class	about 40 ms
Output level range class	-136 dBm to +10 dBm class (options affect max)
Level resolution	0.02 dB
Level accuracy class	about 0.5 to 0.9 dB by band
Output level switching time	about 25 ms
Output impedance	50 ohm
SSB phase noise at 1 GHz 20 kHz ESG AP class	less than -130 dBc/Hz class
Harmonics class	about -30 dBc
Nonharmonics class	about -74 dBc
Modulation	AM FM phase pulse
Sweep points maximum	401
Remote control	GPIB
Series	ESG-AP
Related digital sibling	E4432B ESG-D
Calibration interval class	two year class family Notes Specs from Agilent ESG-A/AP datasheet 5965-3096E for E4425B. Confirm attenuator type Option UNB/1E5/1E6 and max leveled power on the unit.

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.

Specifications	
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Specifications	
PARAMETER	VALUE
Harmonics class	about -30 dBc
Nonharmonics class	about -74 dBc
Modulation	AM FM phase pulse
Sweep points maximum	401
Option 1E5: high stability timebase	
Option 1E6: high performance pulse modulation	
Option UNB: high output power with mechanical attenuator	
Option 1CM: rackmount flange kit	
Option 1EM: rear panel connectors	
Specifications	
PARAMETER	VALUE
Remote control	GPIO

PARAMETER	VALUE
Series	ESG-AP
Related digital sibling	E4432B ESG-D
Calibration interval class	two year class family

Notes
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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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

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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.