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Data Sheet

August 13, 2026

AGILENT

Agilent E4433B ESG Signal Generator, 250KHz â€" 4.0GHz CALIBRATED w/ options

Agilent E4433B ESG-D Series RF Signal Generator 250 kHz to 4 GHz The Agilent E4433B is an ESG-D Series digital and analog RF signal generator covering 250 kHz to 4 GHz. It combines CW and modulated RF output with optional real-time I/Q baseband generation for wireless receiver testing, with fine frequency resolution and deep amplitude range for ATE and R&D benches. The Agilent E4433B is an ESG-D Series digital and analog RF signal generator covering 250 kHz to 4 GHz. It combines CW and modulated RF output with optional real-time I/Q baseband generation for wireless receiver testing, with fine frequency resolution and deep amplitude range for ATE and R&D benches.



MODEL Agilent E4433B	CALIBRATION Available on request
CONDITION Used	STATUS In stock
RFQ / SKU E4433B	LISTING https://aumictechlabs.com/products/e4433b-2/

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent E4433B ESG Signal Generator is a precision RF signal source covering 250 kHz to 4.0 GHz, engineered for wireless communications testing, component characterization, and receiver validation. This instrument delivers extensive modulation flexibility - analog (AM, FM, phase modulation), digital (FSK, MSK, PSK, QAM, and custom I/Q), and pulse modulation - with RF modulation bandwidth to 35 MHz. Output spans -136 dBm to +13 dBm across its operating range,

with frequency resolution down to 0.01 Hz and 14-bit I/Q resolution at 40 MHz sample rate. An internal function generator supplies sine, square, ramp, triangle, pulse, and noise waveforms for analog modulation sources. Onboard waveform memory accommodates 1 Msample (4 MB) playback and storage for arbitrary signal construction.

Technical Specifications

Frequency Range: 250 kHz to 4.0 GHz
Frequency Resolution: 0.01 Hz
Output Power: 250 kHz–1 GHz: +13 dBm to -136 dBm; 1–3 GHz: +10 dBm to -136 dBm; 3–4 GHz: +7 dBm to -136 dBm
Output Impedance: 50 Ohms
Level Accuracy: ± 0.5 dB
RF Modulation Bandwidth: Up to 35 MHz
I/Q Sample Rate: 40 MHz
I/Q Resolution: 14-bit
Waveform Memory: 1 Msample (4 MB) playback and storage

Key Features

Analog modulation: AM, FM, phase modulation
Digital modulation: 15+ variations of FSK, MSK, PSK, QAM; I/Q modulation
Pulse modulation with internal function generator
Step sweep modes: frequency, power, and list
Internal modulation source waveforms: sine, square, ramp, triangle, pulse, noise

Typical Applications

Wireless communications receiver testing
RF component characterization and validation
Digital modulation signal generation and validation
Arbitrary waveform synthesis and playback

Compatibility & Integration

GPIB and RS-232 interfaces
Rack-mountable, lightweight form factor
Optional dual arbitrary waveform generator (Option UND)
Optional real-time I/Q baseband generator (Options UN8, UN3, UN4)
Optional multichannel CDMA personality (Option UN5)
Expandable architecture for future standards accommodation

Features & description

From manufacturer datasheet

Features

- Frequency coverage 250 kHz to 4 GHz • ESG-D series digital and analog instrument class • Frequency resolution 0.01 Hz • Amplitude resolution 0.01 dB • Optional UNB high power and UN8 real-time I/Q baseband • GPIB and RS-232 remote control

Applications

- Cellular and wireless receiver sensitivity testing to 4 GHz • Analog AM FM PM and pulse modulation stimulus • Digital modulation personalities with Option UN8 baseband generator • Automated RF production and R&D stimulus over GPIB

E4433B Characteristics / Specifications

PARAMETER	VALUE
Model	E4433B
Manufacturer	Agilent / Keysight
Instrument Type	ESG-D Series RF Signal Generator
Alias	E4433B; Agilent E4433B ESG; ESG-D 4 GHz
Frequency range	250 kHz to 4 GHz
Frequency resolution	0.01 Hz
Series class	ESG-D digital and analog
Frequency band	greater than 249.999 to 500 MHzNequals 0.5
Standard power 250 kHz to 1 GHz	plus 13 to -136 dBm
Standard power greater than 1 to 3 GHz	plus 10 to -136 dBm
Standard power greater than 3 to 4 GHz	plus 7 to -136 dBm
Amplitude resolution	0.01 dB
Output impedance	50 ohms
RF output connector	TypeNfemale
Reference	internal timebase with external 10 MHz in out
Temperature stability typical 0 to 55 C	less than plus or minus 1 ppm
High stability Option 1E5 class	less than plus or minus 0.05 ppm typical
Modulation analog	AM FM PM pulse
Digital baseband option	UN8 real-time I/Q
Remote control	GPIB IEEE-488; RS-232
Related lower band ESGD	E4430B 1 GHz; E4431B 2 GHz; E4432B 3 GHz
Related ESGDP	E4437B 4 GHz high performance
Publication	Agilent ESG-A/AP and ESG-D/DP datasheet 5965-3096E Notes Specs from Agilent ESG-D Series datasheet for E4433B (250 kHz–4 GHz). Confirm UNB/UN8/1E5 and installed personality options 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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PARAMETER	VALUE
Model	E4433B
Manufacturer	Agilent / Keysight
Instrument Type	ESG-D Series RF Signal Generator
Alias	E4433B; Agilent E4433B ESG; ESG-D 4 GHz
Frequency range	250 kHz to 4 GHz
Frequency resolution	0.01 Hz
Series class	ESG-D digital and analog
Frequency band 1	250 kHz to 249.999 MHzNequals 1
Frequency band 2	greater than 249.999 to 500 MHzNequals 0.5
Frequency band 3	greater than 500 MHz to 1 GHzNequals 1
Frequency band 4	greater than 1 to 2 GHzNequals 2
Frequency band 5	greater than 2 to 4 GHzNequals 4
Standard power 250 kHz to 1 GHz	plus 13 to -136 dBm
Standard power greater than 1 to 3 GHz: plus 10 to -136 dBm Standard power greater than 3 to 4 GHz: plus 7 to -136 dBm Option UNB power 250 kHz to 1 GHz: plus 17 to -136 dBm Option UNB power greater than 1 to 3 GHz: plus 16 to -136 dBm Option UNB power greater than 3 to 4 GHz: plus 13 to -136 dBm	
Specifications	
PARAMETER	VALUE
Amplitude resolution	0.01 dB
Output impedance	50 ohms
RF output connector	TypeNfemale
Reference	internal timebase with external 10 MHz in out
Temperature stability typical 0 to 55 C	less than plus or minus 1 ppm
High stability Option 1E5 class	less than plus or minus 0.05 ppm typical
Modulation analog	AM FM PM pulse

PARAMETER	VALUE
Digital baseband option	UN8 real-time I/Q
Remote control	GPIB IEEE-488; RS-232
Related lower band ESGD	E4430B 1 GHz; E4431B 2 GHz; E4432B 3 GHz
Related ESGDP	E4437B 4 GHz high performance
Publication	Agilent ESG-A/AP and ESG-D/DP datasheet 5965-3096E

Notes
Specs from Agilent ESG-D Series datasheet for E4433B (250 kHz–4 GHz). Confirm UNB/UN8/1E5 and installed personality options on the unit.

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>

NIST-traceable calibration · SAM registered ·
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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.