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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent / Keysight E4430B ESG-D Series Digital RF Signal Generator, 1 GHz

Keysight / Agilent E4430B ESG-A RF Signal Generator 250 kHz to 1 GHz The Agilent E4430B is an ESG-A series analog RF signal generator covering 250 kHz to 1 GHz. OEM family tables list maximum specified power of +13 dBm for 1 GHz class ESG-A models with level accuracy on the order of plus or minus 0.5 to 0.7 dB in the primary bands depending on options. Preset amplitude is typically -135 dBm. Frequency bands are divided with N-divider relationships across 250 kHz to 1 GHz for the E4430B range. RF component stimulus, receiver testing, local oscillator substitution, and general purpose 1 GHz signal generation. The Agilent E4430B is an ESG-A series analog RF signal generator covering 250 kHz to 1 GHz. OEM family tables list maximum specified power of +13 dBm for 1 GHz class ESG-A models with level accuracy on the order of plus or minus 0.5 to 0.7 dB in the primary bands depending on options. Preset amplitude is typically -135 dBm. Frequency bands are divided with N-divider relationships across 250 kHz to 1 GHz for the E4430B range. RF component stimulus, receiver testing, local oscillator substitution, and general purpose 1 GHz signal generation.



MODEL

**Agilent / Keysight
E4430B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E4430B

LISTING

<https://aumictechlabs.com/products/e4430b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight E4430B ESG-D Series is a digital RF signal generator spanning 250 kHz to 1 GHz with sophisticated modulation and baseband generation capabilities. Built for communication system testing in development and production, it delivers custom digital modulation, analog modulation, and pulse modulation with RF modulation bandwidth up to 35 MHz. The instrument combines coherent carrier output with optional real-time I/Q baseband generation and internal BER analysis, making it suitable for demanding R&D and manufacturing test environments.

Technical Specifications

- Frequency Range: 250 kHz to 1 GHz
- RF Modulation Bandwidth: Up to 35 MHz
- I/Q Sample Rate: 40 MHz
- I/Q Resolution: 14-bit
- Waveform Memory: 1 Msample (4 MB) for playback and storage
- Level Accuracy: ± 0.5 dB (> -127 dBm, fc 2 GHz); better than ± 1.05 dB with digital modulation enabled
- Output Impedance: 50 Ω
- Analog I/Q Input Impedance: 50 Ω
- Maximum Analog I/Q Input Level: 1 Vrms
- Calibration Cycle: Two-year
- Dimensions: 16 × 14 × 10 in; 5-inch rack mountable
- Weight: 25 lbs

Key Features

- Custom digital modulation with >15 FSK, MSK, PSK, and QAM variations
- AM, FM, and phase modulation
- Pulse modulation and step/list sweep (frequency and power)
- Optional dual arbitrary waveform generator
- Optional real-time I/Q baseband generator
- Broadband analog I/Q inputs with adjustment capabilities
- RF output via 50 Ω BNC connector
- Internal BER analyzer option (UN7) for bit error rate testing
- GSM/EDGE base station BERT capability (Option 300)
- IntuiLink PC software included

Typical Applications

- Communication system development and validation
- RF device characterization
- Modulated signal generation for receiver testing
- Production-level quality assurance in wireless and broadband applications.

Compatibility & Integration

Part of the ESG family signal generator portfolio. The N5172B EXG X-Series RF vector signal generator is the replacement platform.

E4430B Characteristics / Specifications

PARAMETER	VALUE
Model	E4430B
Instrument Type	ESG-D vector-capable class RF signal generator
Frequency Range	250 kHz to 1 GHz
Series	ESG-A
Max Specified Power	+13 dBm
Level Accuracy Class	about plus or minus 0.5 dB 250 kHz to 2 GHz table class for ESG family
Preset Amplitude Typical	-135 dBm
Frequency Band	above 249.999 MHz to 500 MHz
Related EsgAModels	E4420B 2 GHz E4421B 3 GHz E4422B 4 GHz
Related Digital Esg	E4430B 1 GHz class
Max Dc Voltage At Rf Out Class	50 V family table
Reverse Power Protection Class	50 W below 2 GHz family table
Interfaces Class	GPIB instrument control
Output Type	leveled RF CW and analog modulation capable ESG-A
Switching Speed Class	ESG family frequency switching specifications
Card Geometry	benchtop RF signal generator
Amplitude Resolution Class	ESG family fine amplitude setting
Frequency Resolution Class	ESG family high resolution synthesizer
Documentation Scope	OEM published numeric tables
Installed Options	determine final calibrated limits

E4430B Specifications

PARAMETER	VALUE
Applications	RF component stimulus, receiver testing, local oscillator substitution, and general purpose 1 GHz signal generation.
Two hundred fifty kilohertz to one gigahertz coverage	Plus thirteen dBm maximum specified power class
GPIB programmable ATE stimulus	Wide leveled output range into low amplitudes
Technical Specifications	Model: E4430B

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	
Specifications	
PARAMETER	VALUE
Model	E4430B
Instrument Type	ESG-D vector-capable class RF signal generator
Frequency Range	250 kHz to 1 GHz
Series	ESG-A
Max Specified Power	+13 dBm
Level Accuracy Class	about plus or minus 0.5 dB 250 kHz to 2 GHz table class for ESG family
Preset Amplitude Typical	-135 dBm
Frequency Band 1	250 kHz to 249.999 MHz
Frequency Band 2	above 249.999 MHz to 500 MHz
Frequency Band 3	above 500 MHz to 1 GHz
Related EsgAModels	E4420B 2 GHz E4421B 3 GHz E4422B 4 GHz
Related Digital Esg	E4430B 1 GHz class
Max Dc Voltage At Rf Out Class	50 V family table
Reverse Power Protection Class	50 W below 2 GHz family table
Interfaces Class	GPIO instrument control
Output Type	leveled RF CW and analog modulation capable ESG-A
Switching Speed Class	ESG family frequency switching specifications
Card Geometry	benchtop RF signal generator
Amplitude Resolution Class	ESG family fine amplitude setting
Frequency Resolution Class	ESG family high resolution synthesizer
Documentation Scope	OEM published numeric tables
Installed Options	determine final calibrated limits
Notes	
From Agilent ESG-A/AP and ESG-D/DP datasheet family tables and E44xxB user guide frequency/power limit tables. Modulation options and UNB high-power options change level accuracy.	

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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NIST-traceable calibration · SAM registered ·
30-day returns
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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.