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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight E4437B

Keysight / Agilent E4437B ESG-DP RF Signal Generator 250 kHz to 4 GHz The Keysight/Agilent E4437B is an ESG-DP series digital RF signal generator covering 250 kHz to 4 GHz with high spectral purity. OEM ESG family data sheets list 0.01 Hz frequency resolution, level accuracy of +/-0.5 dB from 250 kHz to 2 GHz for +7 to -120 dBm, SSB phase noise for ESG-DP of less than -130 dBc/Hz at 1 GHz (20 kHz offset), and harmonics less than -30 dBc at specified output levels. Digital wireless receiver test, general-purpose RF stimulus to 4 GHz, and ATE signal generation with analog and optional digital modulation personalities. The Keysight/Agilent E4437B is an ESG-DP series digital RF signal generator covering 250 kHz to 4 GHz with high spectral purity. OEM ESG family data sheets list 0.01 Hz frequency resolution, level accuracy of +/-0.5 dB from 250 kHz to 2 GHz for +7 to -120 dBm, SSB phase noise for ESG-DP of less than -130 dBc/Hz at 1 GHz (20 kHz offset), and harmonics less than -30 dBc at specified output levels. Digital wireless receiver test, general-purpose RF stimulus to 4 GHz, and ATE signal generation with analog and optional digital modulation personalities.

**MODEL****Agilent / Keysight
E4437B****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****E4437B****LISTING**<https://aumictechlabs.com/products/e4437b-2/>

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NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight E4437B is a digital RF signal generator from the ESG-DP series designed for research, development, manufacturing, and troubleshooting applications. It delivers high spectral

purity and advanced digital modulation capabilities across a wide frequency range with flexible output power control. The instrument supports standard and custom digital modulation formats alongside versatile analog modulation techniques, making it suitable for complex signal generation tasks.

Technical Specifications

Frequency Range: 250 kHz to 4 GHz
Frequency Resolution: 0.01 Hz, 10.0 mHz
Output Power: +13 dBm down to -136 dBm (standard); Option UNB provides +17 dBm down to -136 dBm (≤ 1 GHz), +16 dBm down to -136 dBm (> 1 to 3 GHz), +13 dBm down to -136 dBm (> 3 to 4 GHz)
RF Modulation Bandwidth: Up to 35 MHz
Phase Noise: SSB < -134 dBc/Hz at 20 kHz offset (1 GHz carrier); < -138 dBc/Hz typical
Harmonics: < -30 dBc at $\leq +4$ dBm output
Non-Harmonics: 3 kHz offset, 10 kHz offset) from 250 kHz to 250 MHz
Output Impedance: 50 Ω
Reverse Power Protection: 1 watt nominal

Key Features

Modulation support: AM, FM, phase modulation, pulse modulation, wideband FM, and custom digital modulation (> 15 FSK, MSK, PSK, QAM variations) plus I/Q
Optional dual arbitrary waveform generator: 40 MHz sample rate, 14-bit I/Q resolution, 1 Msample (4 MB) playback and storage memory
Optional real-time I/Q baseband generator
GPIO and RS-232 connectivity
Firmware personalities for 3GPP W-CDMA, cdma2000, IS-95-A, GSM/EDGE, 1xEV-DO, and Bluetooth

Optional Configurations

Option 1E5: High stability timebase
Option UN5: Multichannel IS-95 CDMA personality
Option UN7: Internal bit-error-rate analyzer
Option UN8: Real-time I/Q baseband generator with TDMA standards and 1 Mbit RAM
Option UND: Dual arbitrary waveform generator
Rackmount and connector relocation options available

E4437B Characteristics / Specifications

PARAMETER	VALUE
Model	E4437B
Instrument Type	ESG-DP digital RF signal generator
Frequency Range	250 kHz to 4 GHz
Frequency Underrange	100 kHz
Frequency Resolution	0.01 Hz
Frequency Band	above 249.999 MHz to 500 MHz
Level Accuracy 250 Khz To 2 Ghz	+/-0.5 dB (+7 to -120 dBm)
Level Accuracy 2 To 4 Ghz	+/-0.9 dB (+7 to -120 dBm)
Amplitude Resolution	0.02 dB
Output Impedance	50 ohm
Ssb Phase Noise Esg Dp At 1 Ghz 20 Khz	less than -130 dBc/Hz (less than -134 dBc/Hz typical)
Ssb Phase Noise Esg Dp At 4 Ghz 20 Khz	less than -118 dBc/Hz (less than -122 dBc/Hz typical)
Harmonics At Spec Level	less than -30 dBc
Reverse Power Protection To 2 Ghz	50 W
Reverse Power Protection 2 To 4 Ghz	25 W
Max Dc Voltage At Rf Out	50 V
Rf Modulation Bandwidth Class	up to 35 MHz class with baseband options
Arb Sample Rate Class	40 MHz class with dual arb option
Chassis Form	benchtop RF signal generator
Bandwidth	Class: up to 35 MHz class with baseband options

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	E4437B
Instrument Type	ESG-DP digital RF signal generator
Frequency Range	250 kHz to 4 GHz
Frequency Underrange	100 kHz
Frequency Resolution	0.01 Hz
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
Frequency Band 4	above 1 GHz to 2 GHz
Frequency Band 5	above 2 GHz to 4 GHz
Level Accuracy 250 Khz To 2 Ghz	+/-0.5 dB (+7 to -120 dBm)
Level Accuracy 2 To 4 Ghz	+/-0.9 dB (+7 to -120 dBm)
Amplitude Resolution	0.02 dB
Output Impedance	50 ohm
Ssb Phase Noise Esg Dp At 1 Ghz 20 Khz: less than -130 dBc/Hz (less than -134 dBc/Hz typical)	
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Harmonics At Spec Level	less than -30 dBc
Reverse Power Protection To 2 Ghz	50 W
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Max Dc Voltage At Rf Out	50 V
Rf Modulation Bandwidth Class	up to 35 MHz class with baseband options
Arb Sample Rate Class	40 MHz class with dual arb option
Chassis Form	benchtop RF signal generator

Notes

From Agilent ESG Family RF Signal Generators data sheet (E4437B ESG-DP column). Option UNB and pulse options change maximum power and 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

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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.