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Data Sheet
August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight N5171B EXG X-Series RF Analog Signal Generator, 9 kHz to 6 GHz

Agilent Keysight N5171B EXG Analog Signal Generator The Keysight N5171B EXG is an analog X-Series signal generator covering 9 kHz to 1, 3, or 6 GHz. OEM EXG data sheets list 0.001 Hz resolution, standard maximum output to plus 18 dBm through 3 GHz, and Option 1EA paths to plus 21 dBm typical through 3 GHz. Manufacturing parametric test, receiver functional verification, and cost-effective CW/analog RF stimulus from 9 kHz to 6 GHz. Max Output Power Standard 10 MHz To 3 GHz: plus 18 dBm The Keysight N5171B EXG is an analog X-Series signal generator covering 9 kHz to 1, 3, or 6 GHz. OEM EXG data sheets list 0.001 Hz resolution, standard maximum output to plus 18 dBm through 3 GHz, and Option 1EA paths to plus 21 dBm typical through 3 GHz. Manufacturing parametric test, receiver functional verification, and cost-effective CW/analog RF stimulus from 9 kHz to 6 GHz. Max Output Power Standard 10 MHz To 3 GHz: plus 18 dBm Max Output Power Standard 3 To 6 GHz: plus 16 dBm

MODEL **Agilent / Keysight N5171B**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **N5171B**	LISTING **https://aumictechlabs.com/products/n5171b-2/**

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This unit

The Agilent/Keysight N5171B EXG is an RF analog signal generator delivering 9 kHz to 6 GHz coverage with output power from −140 dBm to +20 dBm. Built for component and receiver testing,

it combines exceptional signal purity with versatile modulation and rapid frequency/amplitude switching to support validation and characterization across demanding measurement workflows.Technical Specifications Frequency & Output Frequency range: 9 kHz to 6 GHz Frequency resolution: 0.1 Hz Maximum output power: +20 dBm (typical, 50 Ω) Minimum output power: −140 dBm (typical, 50 Ω) Power accuracy: ±0.5 dB at calibrated frequencies and power levels Power resolution: 0.1 dB Amplitude flatness: ±0.5 dB over 1 GHz bandwidth Signal Purity Phase noise: −110 dBc/Hz at 10 kHz offset (1 GHz carrier); −115 dBc/Hz at 10 kHz offset (2 GHz and 4 GHz carriers) Harmonics: <−60 dBc at +10 dBm output (1 GHz); <−55 dBc at +10 dBm output (4 GHz) Spurious: <−60 dBc non-harmonic (typical at +10 dBm, 1 GHz) Modulation Capabilities Analog modulation: AM, FM, PM AM depth: 0% to 99% FM deviation: 1 Hz to 10 MHz (frequency-dependent) PM deviation: 0.1 to 360 degrees Modulation bandwidth: Up to 10 MHz Sweep & Control Sweep types: Frequency, Power, List Dwell time: 10 µs to 1000 s Frequency/amplitude switching speed: <150 msKey Features 50 Ω output impedance with Type N female connector LAN (LXI compliant) and GPIB remote control USB interface for firmware updates and storage 433 × 178 × 454 mm footprint; 22.7 kgTypical Applications Component characterization, receiver validation, signal fidelity assessment, and modulated signal generation for laboratory and systems integration workflows.Compatibility & Integration Supports X-Series firmware updates and integrates with Keysight Signal Studio software for advanced modulation analysis and generation.

N5171B Characteristics / Specifications

PARAMETER	VALUE
Frequency Option 5	9 kHz to 1 GHz
Frequency Resolution	0.001 Hz
Max Output Power Standard 10 MHz To 3 GHz	plus 18 dBm
Max Output Power Standard 3 To 6 GHz	plus 16 dBm
Max Output Power Option 1EA 10 MHz To 3 GHz	plus 21 dBm
Max Output Power Option 1EA 3 To 6 GHz	plus 18 dBm
Settable Range Standard	plus 19 to minus 144 dBm
Amplitude Resolution	0.01 dB
Step Attenuator	0 to 130 dB in 5 dB steps electronic
RF Connector	Type N 50 ohms nominal
Reference Output Frequency	10 MHz
Reference Output Amplitude	greater than or equal to plus 4 dBm nominal
Internal Reference Aging	less than plus or minus 1 ppm per year
Initial Calibration Accuracy	plus or minus 40 ppb
Switching Speed Standard SCPI Typical	less than or equal to 5 ms
Switching Speed Option UNZ SCPI	less than or equal to 1.15 ms
Step Sweep Points	2 to 65535
List Sweep Points	1 to 3201
Dwell Time Range	100 us to 100 s
Operating Temperature Spec	0 to 55 C
Reverse Power Protection Class	Robust RPP circuit class per EXG overview
Operating temperature	Spec: 0 to 55 C

N5171B Specifications

PARAMETER	VALUE
Agilent Keysight N5171B EXG Analog Signal Generator	Overview
Applications	Manufacturing parametric test, receiver functional verification, and cost-effective CW/analog RF stimulus from 9 kHz to 6 GHz.
Key Features	9 kHz calibrated low frequency coverage
Technical Specifications	Frequency Option 501: 9 kHz to 1 GHz
Notes	From Keysight EXG X-Series N5171B analog data sheet. IQ-mode start frequency caveats apply only to vector siblings.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Spec: 0 to 55 C
Operating Temperature	Spec: 0 to 55 C
Operating Temperature Spec	0 to 55 C
Reverse Power Protection Class	Robust RPP circuit class per EXG overview Notes From Keysight EXG X-Series N5171B analog data sheet. IQ-mode start frequency caveats apply only to vector siblings.

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
Frequency Option 501	9 kHz to 1 GHz
Frequency Option 503	9 kHz to 3 GHz
Frequency Option 506	9 kHz to 6 GHz
Frequency Resolution	0.001 Hz

Max Output Power Standard 10 MHz To 3 GHz: plus 18 dBm
Max Output Power Standard 3 To 6 GHz: plus 16 dBm
Max Output Power Option 1EA 10 MHz To 3 GHz: plus 21 dBm
Max Output Power Option 1EA 3 To 6 GHz: plus 18 dBm

Specifications

PARAMETER	VALUE
Settable Range Standard	plus 19 to minus 144 dBm
Amplitude Resolution	0.01 dB
Step Attenuator	0 to 130 dB in 5 dB steps electronic
RF Connector	Type N 50 ohms nominal
Reference Output Frequency	10 MHz
Reference Output Amplitude	greater than or equal to plus 4 dBm nominal
Internal Reference Aging	less than plus or minus 1 ppm per year
Initial Calibration Accuracy	plus or minus 40 ppb
Switching Speed Standard SCPI Typical	less than or equal to 5 ms
Switching Speed Option UNZ SCPI	less than or equal to 1.15 ms
Step Sweep Points	2 to 65535
List Sweep Points	1 to 3201
Dwell Time Range	100 us to 100 s
Operating Temperature Spec	0 to 55 C
Reverse Power Protection Class	Robust RPP circuit class per EXG overview

Notes

From Keysight EXG X-Series N5171B analog data sheet. IQ-mode start frequency caveats apply only to vector siblings.

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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