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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight N5183B MXG X-Series Microwave Analog Signal Generator, 9 kHz to 40 GHz

Agilent N5183B MXG X-Series Microwave Analog Signal Generator The Agilent N5183B is an MXG microwave analog signal generator with frequency options commonly extending from 100 kHz into the microwave bands up to 13, 20, 31.8, or 40 GHz class. OEM MXG microwave materials emphasize clean CW, analog modulation, and fast switching for component and LO substitution tests. LO substitution, component CW stimulus, EMC and susceptibility drivers, and general microwave analog signal generation. Frequency Range Minimum Class: 100 kHz class The Agilent N5183B is an MXG microwave analog signal generator with frequency options commonly extending from 100 kHz into the microwave bands up to 13, 20, 31.8, or 40 GHz class. OEM MXG microwave materials emphasize clean CW, analog modulation, and fast switching for component and LO substitution tests. LO substitution, component CW stimulus, EMC and susceptibility drivers, and general microwave analog signal generation. Frequency Range Minimum Class: 100 kHz class Frequency Maximum Options: 13 20 31.8 or 40 GHz class



MODEL

**Agilent / Keysight
N5183B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N5183B

LISTING

<https://aumictechlabs.com/products/n5183b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N5183B MXG X-Series Microwave Analog Signal Generator delivers signal generation across 9 kHz to 40 GHz, addressing demanding RF and microwave test requirements in radar, satellite communications, and wireless device validation. This instrument combines wide frequency coverage with precise signal control: 0.001 Hz resolution, rapid frequency switching ($\leq 900 \mu\text{s}$ in list/step mode), and configurable output power to +21 dBm. Phase noise performance reaches -124 dBc/Hz at 10 GHz with 10 kHz offset, while harmonic suppression maintains -55 dBc levels across the band. The N5183B supports AM (DC to 100 kHz), FM (1 to 128 MHz deviation), pulse modulation (20 ns minimum width), and CW blocking. Five internal function generators enable narrowband chirp and radar antenna scan simulation. Sweep capabilities include step mode (2 to 65,535 points) and list mode (1 to 3,201 points) with adjustable dwell times from 100 μs to 100 s. Frequency switching reaches typical speeds of $\leq 600 \mu\text{s}$ in list mode and $\leq 1.15 \text{ ms}$ in CW mode.

Technical Specifications

Frequency Range:	9 kHz to 40 GHz (model-dependent options available: 13 GHz, 20 GHz, 31.8 GHz variants)
Frequency Resolution:	0.001 Hz
Output Power:	-135 to +20 dBm (with Option 1E1 and 1EA); -20 to +19 dBm (standard); up to +21 dBm at 20 GHz with Option 540 and 1EA
Level Accuracy:	$\pm 0.7 \text{ dB}$ at 20 GHz; $\pm 0.6 \text{ dB}$ from 9 kHz to 2 GHz; $\pm 1.1 \text{ dB}$ from 20 GHz to 40 GHz
Phase Noise:	-124 dBc/Hz at 10 GHz (10 kHz offset); -116 dBc/Hz at 20 kHz offset
Harmonics:	-55 dBc at 10 GHz and 20 GHz
Spurious:	-75 dBc typical; -68 dBc at 20 GHz
FM Deviation:	1 to 128 MHz maximum
PM Phase Deviation:	0.5 to 64 rad (normal mode)
Pulse Width:	20 ns minimum
Frequency Reference Accuracy:	$\pm 40 \text{ ppb}$; internal aging $< \pm 1 \times 10^{-7}/\text{year}$

Key Features

- Compact 2U rackmount form factor for lab, depot, and field deployment
- Step and list sweep modes with up to 65,535 programmable points
- Dwell time control: 100 μs to 100 s per point
- 50 Ω output impedance; N-type connectors (3.5 mm SMA on 513/520; 2.4 mm on 532/540)
- Internal waveform generators: sine, square, triangle, positive and negative ramp
- External 10 MHz reference input support

Typical Applications

- Radar and electronic warfare system testing
- Satellite communication component validation
- Wireless device and antenna characterization
- Microwave component performance verification

Compatibility & Integration

The N5183B accepts 10 MHz external frequency references and integrates into automated test systems via standard RF connectors and programmable sweep interfaces.

N5183B Characteristics / Specifications

PARAMETER	VALUE
Frequency Range Minimum Class	100 kHz class
Frequency Maximum Options	13 20 31.8 or 40 GHz class
Instrument Type	microwave analog signal generator
Series Family	Agilent MXG N5183B
Modulation Class	AM FM phase pulse
Output Level Range Class	leveled MXG microwave power class
Level Accuracy Class	high accuracy leveled output class
Switching Speed Class	fast MXG switching class
Phase Noise Architecture	MXG microwave LO architecture
Pulse Modulation	available
Reference Oscillator	internal with external ref input
RF Output Connector Class	3.5 mm or 2.4 mm by frequency option
ALC Leveling	supported
Frequency Resolution Class	fine synthesis resolution class
Step Attenuator Options	available class
Sibling Vector Model	N5182B MXG vector
Narrow Pulse Option	available class
Remote Interfaces	LAN USB GPIB class
Form Factor	benchtop instrument
Operating Temperature Class	standard laboratory class
Calibration Interval Class	annual calibration class recommended
Power Mains Class	100 to 240 VAC class
Firmware Upgrade Path	option and firmware upgradeable class
Operating temperature	Class: standard laboratory class

N5183B Specifications

PARAMETER	VALUE
Applications	LO substitution, component CW stimulus, EMC and susceptibility drivers, and general microwave analog signal generation.
MXG microwave analog generator platform	Multiple maximum frequency options
Technical Specifications	Frequency Range Minimum Class: 100 kHz class

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: standard laboratory class
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Operating Temperature Class	standard laboratory class
Calibration Interval Class	annual calibration class recommended
Power Mains Class	100 to 240 VAC class
Firmware Upgrade Path	option and firmware upgradeable class Notes From Agilent/Keysight N5183B MXG microwave configuration materials. Quote installed frequency option for exact maximum frequency and connector type.

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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Frequency Range Minimum Class	100 kHz class
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Output Level Range Class	leveled MXG microwave power class
Level Accuracy Class	high accuracy leveled output class
Switching Speed Class	fast MXG switching class
Phase Noise Architecture	MXG microwave LO architecture
Pulse Modulation	available
Reference Oscillator	internal with external ref input
RF Output Connector Class	3.5 mm or 2.4 mm by frequency option
ALC Leveling	supported
Frequency Resolution Class	fine synthesis resolution class
Step Attenuator Options	available class
Sibling Vector Model	N5182B MXG vector
Narrow Pulse Option	available class
Remote Interfaces	LAN USB GPIB class
Form Factor	benchtop instrument
Operating Temperature Class	standard laboratory class
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Power Mains Class	100 to 240 VAC class
Firmware Upgrade Path	option and firmware upgradeable class
Notes	
From Agilent/Keysight N5183B MXG microwave configuration materials. Quote installed frequency option for exact maximum frequency and connector type.	

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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<https://aumictechlabs.com>

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.