

KEYSIGHT TECHNOLOGIES (AGILENT HP)

N5173B

The Keysight N5173B EXG is a microwave analog signal generator that balances performance, cost, and size to provide excellent value for broadband RF and microwave testing. Designed for component test, general-purpose microwave applications, and local oscillator (LO) substitution, it offers a standard frequency range starting at 9 kHz and up to 40 GHz depending on the selected frequency option. The N5173B features step and list sweep capabilities, versatile analog modulation (AM, FM, PM, and Pulse), and standard connectivity options including LAN (LXI Core), USB, and GPIB.

SPECIFICATIONS

Frequency

Minimum Frequency	9 kHz Hz
Maximum Frequency	13, 20, 31.8, or 40 GHz (configuration dependent) Hz
Frequency Resolution	0.001 Hz
Phase Offset Resolution	0.1°

Output

Maximum Output Power	+20 dBm (@ 20 GHz, with Option 1EA) dBm
Output Power Range	-130 dBm to +20 dBm (configuration and frequency dependent)
Phase Noise	-98 dBc/Hz @ 10 GHz, 20 kHz offset (-101 dBc/Hz typical)

Modulation

Modulation	AM, FM, PM, Pulse
Sweep Modes	Step, List
AM Depth	0 to 100%
Pulse Modulation On/Off Ratio (Option UNW)	> 80 dB
Pulse Modulation Rise/Fall Time (Option UNW)	< 10 ns (typical)
Pulse Modulation Minimum Pulse Width (Option UNW)	20 ns

General

Interfaces	LAN, USB 2.0, GPIB
Display	Color LCD

Physical

Power Supply	100 to 240 VAC, 50/60 Hz
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Frequency Specifications

Frequency Range Options	13 GHz (Opt 513), 20 GHz (Opt 520), 31.8 GHz (Opt 532), 40 GHz (Opt 540)
Internal Reference Frequency	10 MHz

Analog Modulation

Analog Modulation	AM, FM, PM, Pulse
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Interfaces and Connectivity

10 MHz Reference Input	BNC (female)
10 MHz Reference Output	BNC (female)
RF Output Connector (13 / 20 GHz Options)	3.5 mm (male)
RF Output Connector (31.8 / 40 GHz Options)	2.4 mm (male)
Modulation Inputs	BNC (female)
Trigger / Gate Inputs	BNC (female)
Trigger / Gate Outputs	BNC (female)
GPIB Interface	IEEE-488.2
LAN Interface	1000Base-T (LXI Core)
USB Ports	USB 2.0 (Type-A and Type-B)

Software and Automation

Supported Command Sets	SCPI
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Power and Environmental

Line Voltage Range	100 to 240 VAC
Line Frequency	50 / 60 Hz

Physical Specifications

Dimensions (Height/Rack Units)	2 RU
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Performance

Amplitude Resolution	0.01 dB
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Environmental

Operating Temperature	0 °C to 55 °C
Storage Temperature	-40 °C to 70 °C
Operating Altitude	Up to 4,600 m (15,000 ft)
Environmental Standard	Complies with MIL-PRF-28800F Class 3

Compliance

EMC Compliance	IEC 61326-1, EN 61326-1, CISPR 11 Class A
Safety Compliance	IEC 61010-1, EN 61010-1, CSA C22.2 No. 61010-1

Sweep

Step Sweep Points	2 to 65,535
List Sweep Points	1 to 3,201
Sweep Dwell Time	100 μ s to 100 s

RF Output

Maximum Reverse Power	0.5 W (0 VDC max)
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Power

Maximum Power Consumption	250 W
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TECHNOLOGY

Microwave Analog Signal Generator

APPLICATIONS

Component Test, LO Substitution, General Purpose Microwave Test

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.