

KEYSIGHT TECHNOLOGIES (AGILENT HP)

N8241A

The Keysight N8241A is a high-performance, 15-bit arbitrary waveform generator (AWG) designed in a compact 1U LXI Class A compliant form factor. Combining dual-channel high resolution with sample rates up to 1.25 GS/s and an analog bandwidth up to 500 MHz, it is optimized for demanding radar, satellite, and digital wireless communication applications where high fidelity and precise signal generation are critical.

SPECIFICATIONS

General

Interfaces	LAN (LXI Class A), USB 2.0
Display	None (status LED indicators only)

Physical

Operating Temperature	0 to 50 °C °C
Dimensions (W×H×D)	213 mm × 43.6 mm × 368 mm mm
Weight	3.6 kg

Channel Configuration & Core Architecture

Number of Channels	2
DAC Resolution	15 bits
Maximum Sample Rate	1.25 GS/s (Option 125) / 625 MS/s (Option 062)

Arbitrary Waveform Performance

Analog Bandwidth	500 MHz (Option 125) / 250 MHz (Option 062)
Waveform Memory Depth	8 MSamples (Option 008) / 16 MSamples (Option 016) per channel

Output Characteristics

Output Configuration	Differential or single-ended
Output Impedance	50 Ω (nominal)

System Connectivity & Control

LXI Compliance	LXI Class A
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Physical Characteristics & Compliance

Form Factor	1U LXI half-rack
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Dynamic Performance

Spurious-Free Dynamic Range (SFDR)	-80 dBc at 10 MHz output (typical, Option 125)
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Analog Outputs

Differential Output Amplitude	1 Vp-p into 100 Ω
Single-Ended Output Amplitude	500 mVp-p into 50 Ω

Clock & Frequency

External Reference Input	10 MHz (SMA)
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Markers & Triggers

Number of Markers	2 per channel (Marker 1 and Marker 2)
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Waveform Generation

Minimum Waveform Segment Length	128 points
Waveform Segment Resolution	8 points
Maximum Number of Segments	65536

Connectors

Analog Output Connectors	SMA female
Trigger Input Connector	SMA female
Marker Output Connectors	SMA female
External Clock Input Connector	SMA female
External Reference Input Connector	SMA female

Environmental

Storage Temperature	-40 °C to +70 °C
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TECHNOLOGY

Arbitrary Waveform Generator

APPLICATIONS

Aerospace, Defense, and Wireless Communications Testing

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