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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 81105A pulse pattern generators the new 81150A

HP / Agilent Pattern Generators. Frequency range: 1 mHz to 80 MHz, Channels: 1 or 2 (configurable), Frequency range: 1 μ Hz to 120 MHz.



MODEL

**HP / Agilent
81105A / 81150A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

81105A / 81150A

LISTING

<https://aumictechlabs.com/products/81105a-81150a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 81105A and Agilent 81150A are pulse pattern generators engineered for precise signal generation across testing and design verification workflows. The 81105A delivers deterministic pulse control with configurable width, delay, and amplitude parameters, while the 81150A extends functionality by combining pulse generation, function arbitrary waveform, and noise generation into a single instrument. Both models support complex data patterns and PRBS generation, reducing test setup complexity and improving measurement repeatability across telecommunications, digital design, automotive, and radar applications. Technical Specifications 81105A Frequency range: 1 mHz to 80 MHz Channels: 1 or 2 (configurable) Output amplitude: Up to 20 Vpp (into 50 Ω) Transition times: 3 ns to 200 ms (variable) Repetition rate: 1 mHz to 89 MHz Pattern depth: 16 kbit/channel Single-ended outputs with glitch-free timing 81150A Pulse generation frequency range: 1 μ Hz to 120 MHz Sine waveform frequency range: 1 μ Hz to 240 MHz

Channels: 1 or 2 (differential outputs) Arbitrary waveform: 14-bit resolution, 2 GSa/s, 512 k samples/channel Output amplitude (high bandwidth): 50 mVpp to 5 Vpp (50 Ω into 50 Ω); 100 mVpp to 10 Vpp (50 Ω into open) Output amplitude (high voltage): 100 mVpp to 10 Vpp (50 Ω into 50 Ω); 200 mVpp to 20 Vpp (5 Ω into 50 Ω or 50 Ω into open) Voltage window: ± 5 V to ± 20 V (load dependent) Transition times: Faster than 2.5 ns; 1.0 ns to 1000 s (10/90) Output impedance: 50 Ω /5 Ω selectable Key Features Waveform support: Noise, sine, pulse, square, ramp, arbitrary waveforms Modulation types: AM, FM, PM, FSK, PWM (internal and external) Modulation frequencies: Up to 10 MHz (basic); up to 50 MHz (advanced) Internal and external clocking with triggerable or internal PLL operation Analog channel addition capability (81105A) Typical Applications Telecommunications, digital design verification, automotive testing, radar system validation Compatibility & Integration 81105A compatible with Agilent 81101A, 81104A, and 81110A pulse pattern generators

Features & description

From manufacturer datasheet

Features

- Pulse: 1 μ Hz to 120 MHz; sine: 1 μ Hz to 240 MHz • Arbitrary: 14-bit, 2 GSa/s, 512 k samples/channel • Transition times: 2.5 ns to 1000 s (10%–90%) • Noise: adjustable crest factor; ~26-day repetition • Modulation: AM, FM, PM, PWM, FSK (internal/external) • Channels: 1 or 2; differential; couple/add • Two amplifier paths: high bandwidth (50 mV–5 Vpp into 50 Ω) and high voltage (100 mV–10 Vpp into 50 Ω ; up to 20 Vpp into open/5 Ω paths) • Pattern option: to 120 Mbit/s; 16 Mbit pattern memory; PRBS to 2^{31} • Interfaces: LAN, GPIB, USB; SCPI 1992 / IEEE 488.2

81105A81150A Key Specifications

PARAMETER	VALUE
Pulse	1 μHz to 120 MHz; sine: 1 μHz to 240 MHz
Arbitrary	14-bit, 2 GSa/s, 512 k samples/channel
Transition times	2.5 ns to 1000 s (10%–90%)
Noise	adjustable crest factor; ~26-day repetition
Modulation	AM, FM, PM, PWM, FSK (internal/external)
Channels	1 or 2; differential; couple/add
Two amplifier paths	high bandwidth (50 mV–5 Vpp into 50 Ω) and high voltage (100 mV–10 Vpp into 50 Ω; up to 20 Vpp into open/5 Ω paths)
Pattern option	to 120 Mbit/s; 16 Mbit pattern memory; PRBS to 2^31
Interfaces	LAN, GPIB, USB; SCPI 1992 / IEEE 488.2

81105A81150A Characteristics / Specifications

PARAMETER	VALUE
Model	81150A
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	Pulse Function Arbitrary Noise Generator
Alias	81150A; Agilent 81150A Frequency / Sampling
Pulse	1 μHz–120 MHz; Sine: 1 μHz–240 MHz
AWG	14-bit, 2 GSa/s; memory 512 kSa/ch Amplitude (50 Ω into 50 Ω)
High BW amp	50 mVpp–5 Vpp
High voltage amp	100 mVpp–10 Vpp Operational Notes Related 81160A extends to 330 MHz. Prefer Keysight datasheet 5989-6433.

81105A81150A Specifications

PARAMETER	VALUE
Key Features	- Pulse: 1 μHz to 120 MHz; sine: 1 μHz to 240 MHz
Technical Specifications	Model: 81150A
Frequency / Sampling	Pulse: 1 μHz–120 MHz; Sine: 1 μHz–240 MHz
Operational Notes	Related 81160A extends to 330 MHz. Prefer Keysight datasheet 5989-6433.

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	81150A
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	Pulse Function Arbitrary Noise Generator
Alias	81150A; Agilent 81150A

Frequency / Sampling

Pulse: 1 μHz–120 MHz; Sine: 1 μHz–240 MHz

AWG: 14-bit, 2 GSa/s; memory 512 kSa/ch

Amplitude (50 Ω into 50 Ω)

High BW amp: 50 mVpp–5 Vpp

High voltage amp: 100 mVpp–10 Vpp

Operational Notes

Related 81160A extends to 330 MHz. Prefer Keysight datasheet 5989-6433.

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.