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Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 8110A Pulse Pattern Generator, 150 MHz

The Agilent 8110A is a 150 MHz pulse/pattern generator providing clean pulses with 2 ns variable transitions, 10 Vpp into 50 ohm, 4 kbit pattern memory per channel, and optional dual-channel multilevel signals. OEM datasheets highlight SCPI programmability, graphic display, and optional PLL/deskew modules for ATE and R&D. Used to stimulate CMOS, TTL, LVDS, and ECL designs with pulses, patterns, and three/four-level waveforms; to compensate cable delays with deskew; and to build up to ten synchronized channels by mastering multiple 8110A units. Used to stimulate CMOS, TTL, LVDS, and ECL designs with pulses, patterns, and three/four-level waveforms; to compensate cable delays with deskew; and to build up to ten synchronized channels by mastering multiple 8110A units. 150 MHz timing with 2 ns variable independent leading/trailing edges 4 kbit pattern per channel in RZ, NRZ, and DNRZ formats with PRBS Optional second channel and internal channel addition for multilevel signals



MODEL

HP / Agilent 8110A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

8110A

LISTING

<https://aumictechlabs.com/products/8110a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 8110A Pulse Pattern Generator delivers programmable pulse generation from 1 Hz to 150 MHz, enabling precise testing of digital circuits and logic devices. This dual-channel instrument generates single pulses, complex digital patterns, and multilevel signals with

independently variable parameters including amplitude, width, delay, and transition time. Dual BNC outputs with 50 Ω impedance support continuous, external-triggered, and gated operation modes. Technical Specifications Frequency and Timing Frequency range: 1 Hz to 150 MHz Frequency accuracy: $\pm 0.5\% \pm 150$ ps typical Timing resolution: 10 ps Transition time: 2 ns typical Minimum pulse width: 3.3 ns Pulse width accuracy: $\pm 0.5\% \pm 250$ ps typical Delay range: 0 ns to (period – 6.6 ns), maximum 999 ms Delay accuracy: $\pm 5\% \pm 1$ ns Output Specifications Amplitude: 100 mV to 10 Vpp into 50 Ω load; 200 mVpp to 20 Vpp into 1 k Ω load Amplitude resolution: 10 mV Output impedance: 50 Ω typical Pattern memory: 16 kbit per channel External Triggering External input voltage: ± 15 Vpp maximum Input sensitivity: ≤ 300 mVpp typical Input frequency range: DC to 150 MHz Input impedance: 50 Ω Trigger modes: Continuous, external-triggered, external gate, external width, manual Key Features Single- and dual-channel output configuration RZ/NRZ (Return-to-Zero/Non-Return-to-Zero) operating modes Three- and four-level signal generation Internal PLL for clock recovery SCPI programming commands supported Graphic and LED display interfaces Compact form factor Typical Applications Digital circuit and logic device characterization High-speed digital system testing Complex pattern generation for timing analysis Functional validation of TTL and ECL logic families Compatibility & Integration BNC connectors provide standard 50 Ω RF connectivity. Two output channels and one input channel enable flexible test configurations. SCPI command support enables remote operation and integration into automated test systems.

8110A Characteristics / Specifications

PARAMETER	VALUE
Frequency range	up to 150 MHz
Minimum transition time	2 ns variable
Timing resolution	10 ps
Frequency accuracy	0.1%
Pattern length	4 kbit per channel
PRBS lengths	$2^{(n-1)}$ for $n = 7$ to 12
Amplitude 50 ohm into 50 ohm	100 mV to 10.0 V Amplitude into open approximately doubles relative to 50 ohm load
High level range 50 ohm	−9.90 V to +10.0 V
Low level range 50 ohm	−10.0 V to +9.90 V
Level accuracy typical	±(1% amplitude + 50 mV) class
Burst count	2 to 65536
External input frequency	dc to 150 MHz
External input min pulse width	3.3 ns
External input threshold	−10 V to +10 V
External input impedance	50 ohm or 10 kΩ selectable
Trigger and strobe output levels	TTL or ECL selectable
Trigger output transition times	2 ns typical
Delay external input to trigger output	18.5 ns typical
PLL period range with 81106A	6.65 ns to 999 s
PLL period accuracy with 81106A	±0.1%
PLL RMS jitter with 81106A	0.003% + 20 ps
Deskew variable range with 81107A	0 ns to 28 ns
Operating temperature	0 °C to 55 °C
Power	100–240 Vac ±10%, 50–60 Hz; 300 VA max
Dimensions	89 mm × 426 mm × 521 mm

PARAMETER	VALUE
Net weight	9.2 kg

General Specifications & Supplementary Characteristics

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Net weight	9.2 kg Notes Specifications are from Agilent Technologies 8110A 150 MHz Pulse Generator technical specifications (5980-1212E). Minimum configuration requires mainframe plus at least one 81103A output channel.

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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Notes

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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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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.