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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 8110A " Pulse Pattern Generator

HP Agilent 8110A Pulse Pattern Generator Mainframe The Agilent 8110A is an 81100-family pulse/pattern generator mainframe that accepts 81111A (165 MHz / 10 V) or 81112A (330 MHz / 3.8 V) output modules. OEM datasheet highlights self-calibration and pattern lengths of 16 kbit per channel. High-speed digital pulse and pattern stimulus, differential ECL/LVDS style outputs with 81112A, and multi-level signaling with dual-channel addition on 81111A modules. Choice of 165 MHz variable-transition or 330 MHz selectable-transition modules The Agilent 8110A is an 81100-family pulse/pattern generator mainframe that accepts 81111A (165 MHz / 10 V) or 81112A (330 MHz / 3.8 V) output modules. OEM datasheet highlights self-calibration and pattern lengths of 16 kbit per channel. High-speed digital pulse and pattern stimulus, differential ECL/LVDS style outputs with 81112A, and multi-level signaling with dual-channel addition on 81111A modules. Choice of 165 MHz variable-transition or 330 MHz selectable-transition modules ModuleA Frequency Range: 1 MHz to 165 MHz (81111A)



MODEL

**Agilent / Keysight
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 Agilent/Keysight 8110A Pulse Pattern Generator is a configurable instrument that delivers precise pulse and pattern generation from 1 MHz to 330 MHz. It operates as a single or dual-

channel system, with output capability determined by the selected module: the 81111A (165 MHz maximum) or 81112A (330 MHz maximum). This architecture enables flexible deployment across digital and analog circuit testing, device characterization, and signal validation tasks.

Technical Specifications

Output Module Options

The 81111A module provides 1 MHz to 165 MHz operation with amplitude selection of 100 mVpp to 10 Vpp or 100 mVpp to 20.0 Vpp. Transition time ranges from 2 ns to 200 ms with selectable source impedance (50 ohms or 1 kohm). Output connects via single-ended BNC. The 81112A module extends operation to 330 MHz with amplitude range of 10 mVpp to 3.8 Vpp or 100 mV to 3.8 V. Fixed transition time selection of 0.8 ns or 1.6 ns with 50-ohm source impedance. Output is differential BNC.

Timing & Resolution

Timing resolution reaches 5 ps best case (3.5 digits nominal). Period range with 81112A: 3.03 ns to 999.9 s; with 81111A: 6.06 ns to 999.9 s. Pulse width and delay ranges scale with module selection. Output accuracy is $\pm 2\%$ (81112A) or $\pm 1\%$ (81111A). Resolution is 10 mV.

Operational Characteristics

Variable delay range extends from 0 ns to period-dependent maximums. Double pulse delay capability is built-in with module-specific minimum delays (3.03 ns for 81112A; 6.06 ns for 81111A). Self-calibration is available. Triggering and PLL operation are selectable.

Key Features

- Dual-channel or single-channel configuration
- Level window adjustment: -10.0 V to +10.0 V (81111A) or -2.0 V to +3.8 V (81112A)
- Modular output architecture supports future upgrades
- Compatible with Keysight 81101A, 81104A, and 81150A programming environments

Physical & Electrical Dimensions

89 mm H $\times$ 426 mm W $\times$ 521 mm D. Weight: 21 lb. Power: 100-240 Vac $\pm 10\%$ at 50-60 Hz, or 100-120 Vac $\pm 10\%$ at 400 Hz.

81110A Characteristics / Specifications

PARAMETER	VALUE
Mainframe Model	81110A
ModuleAFrequency Range	1 mHz to 165 MHz (81111A)
ModuleBFrequency Range	1 mHz to 330 MHz (81112A)
Channels	1 or 2
ModuleAVariable Delay Range	6.06 ns to 999.5 s
ModuleBVariable Delay Range	1.515 ns to 999.5 s
ModuleAWidth Range	3.03 ns to 999.5 s
ModuleBWidth Range	1.515 ns to 999.5 s
ModuleAAmplitude Range	100 mV to 20.0 V class
ModuleBAmplitude Range	100 mV to 3.8 V
ModuleATransition Time Range	2.00 ns to 200 ms variable
ModuleBTransition Times	800 ps or 1.6 ns selectable
ModuleASource Impedance	50 Ohm or 1 kOhm
ModuleBSource Impedance	50 Ohm
Pattern Length	16 kbit per channel
Pattern Formats	RZ NRZ
PRBS	supported
Dropout Free Timing Change	Yes
Self Calibration	Yes
Channel Addition With Dual Module A	supported
Amplitude Module A 50 Ohm Into 50 Ohm	100 mVpp to 10.0 Vpp
Amplitude Module B 50 Ohm Into 50 Ohm	100 mVpp to 3.8 Vpp
Settling Time Typical ModuleBLevels	5 ns
Settling Time Typical ModuleALevels	30 ns

81110A Specifications

PARAMETER	VALUE
HP Agilent 81110A Pulse Pattern Generator Mainframe	Overview
Key Features	Choice of 165 MHz variable-transition or 330 MHz selectable-transition modules
Self calibration for improved accuracy	16 kbit pattern memory per channel
Technical Specifications	Mainframe Model: 81110A
Notes	Specs from Agilent 81100 Family of Pulse Pattern Generators data sheet Version 1.3 for 81110A with 81111A/81112A modules.

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
Mainframe Model	81110A
ModuleAFrequency Range	1 mHz to 165 MHz (81111A)
ModuleBFrequency Range	1 mHz to 330 MHz (81112A)
Channels	1 or 2
ModuleAVariable Delay Range	6.06 ns to 999.5 s
ModuleBVariable Delay Range	1.515 ns to 999.5 s
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ModuleBWidth Range	1.515 ns to 999.5 s
ModuleAAmplitude Range	100 mV to 20.0 V class
ModuleBAmplitude Range	100 mV to 3.8 V
ModuleATransition Time Range	2.00 ns to 200 ms variable
ModuleBTransition Times	800 ps or 1.6 ns selectable
ModuleASource Impedance	50 Ohm or 1 kOhm
ModuleBSource Impedance	50 Ohm
Pattern Length	16 kbit per channel
Pattern Formats	RZ NRZ
PRBS	supported
Dropout Free Timing Change	Yes
Self Calibration	Yes
Channel Addition With Dual Module A	supported
Amplitude Module A 50 Ohm Into 50 Ohm: 100 mVpp to 10.0 Vpp Amplitude Module B 50 Ohm Into 50 Ohm: 100 mVpp to 3.8 Vpp Settling Time Typical ModuleBLevels: 5 ns Settling Time Typical ModuleALevels: 30 ns	
Notes Specs from Agilent 81100 Family of Pulse Pattern Generators data sheet Version 1.3 for 81110A with 81111A/81112A modules.	

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 ·
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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.