

KEYSIGHT TECHNOLOGIES (AGILENT HP)

81110A

The Keysight / Agilent 81110A is a versatile single- or dual-channel Pulse Pattern Generator mainframe capable of operation up to 330 MHz. It requires one or two output modules to function, natively supporting the 81111A (165 MHz, 10 V, single-ended) and the 81112A (330 MHz, 3.8 V, differential) modules. Designed to replace the industry-standard 8110A, it offers selectable pulse, burst, and pattern modes, PLL capability, and a self-calibration feature that significantly improves timing accuracy.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488.2)
Warm-up Time	30 minutes

Physical

Power Supply	100 - 240 VAC, 50/60 Hz, 300 VA max
Operating Temperature	0 to +55 °C
Dimensions (W×H×D)	426 × 89 × 521 mm
Weight	9.2 kg

General Characteristics

Frequency Range	Up to 165 MHz (with 81111A module) / Up to 330 MHz (with 81112A module)
Number of Channels	1 or 2 (depending on installed modules)
Architecture / Modularity	Mainframe (requires output modules)
Compatible Output Modules	Agilent 81111A, Agilent 81112A

Output Characteristics

Output Impedance	50 Ω
Amplitude Range (with 81111A)	10 V (50 Ω into 50 Ω)
Amplitude Range (with 81112A)	3.8 V (50 Ω into 50 Ω)

Environmental

Storage Temperature	-40 °C to +70 °C
Humidity	Up to 95% RH (0 °C to +40 °C)

Performance

Pattern Length	16 kbit per channel
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Pulse Characteristics

Pulse Width Range (with 81111A)	3.00 ns to 999 ms
Pulse Width Range (with 81112A)	1.50 ns to 999 ms
Transitions (with 81111A)	Variable, 2.00 ns to 200 ms
Transitions (with 81112A)	Fixed, 800 ps or 1.6 ns selectable

Inputs & Outputs

Trigger Input Impedance	50 Ω or 10 kΩ (selectable)
Trigger Input Threshold	-10 V to +10 V
Maximum External Input Voltage	±15 Vdc

Pattern Generation

PRBS Capability	2^n - 1 (n = 7, 10, 11, 15, 23, 31)
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TECHNOLOGY

Pulse/Pattern Generation

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