

KEYSIGHT TECHNOLOGIES (AGILENT HP)

81105A

The Keysight 81105A is a high-performance single-channel pulse/pattern generator output module designed for the 81104A mainframe. Offering variable transition times, wide amplitude support, and complex pattern capabilities, it is ideal for physical layer testing, functional device characterization, and clock generation.

SPECIFICATIONS

General

Interfaces	BNC (Output, Complementary Output)
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Physical

Power Supply	Powered by 81104A mainframe
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Operating Temperature	0 °C to 55 °C °C
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Timing and Frequency Specifications

Frequency Range	1 mHz to 80 MHz
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Clocking Modes	Internal and external clocking
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Timing Adjustments	Glitch-free timing changes
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Frequency Generation Mode	Triggerable or internal PLL
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Channel and Configuration Options

Channels per Module	1 channel
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Mainframe Compatibility	Keysight / Agilent 81104A (supports up to 2 modules)
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Output Coupling	Single ended outputs
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Analog Channel Addition	Supported (combining outputs from two modules)
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Source Impedance	50 Ω
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Pulse Characteristics

Amplitude Range	Up to 10 Vpp (into 50 Ω)
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Transition Time Range	3 ns to 200 ms (variable)
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Pattern Generation

Pattern Capabilities	Complex data patterns
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PRBS Generation	Pseudo Random Binary Sequence (PRBS) generation supported
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Output Characteristics

Voltage Window	-10.0 V to +10.0 V (into 50 Ω), -20.0 V to +20.0 V (into open circuit)
Resolution of Levels	10 mV (into 50 Ω), 20 mV (into open circuit)
Overshoot and Ringing	< 5% of amplitude ± 0.1 V
Output Connector	BNC female

Timing Characteristics

Pulse Width Range	3.3 ns to 999.9 s
Delay Range	0.0 ns to 999.9 s
Double Pulse Delay Range	6.6 ns to 999.9 s
Duty Cycle Range	0.001% to 99.999%

Environmental

Storage Temperature	-40 °C to +70 °C
Operating Humidity	95% R.H. up to 40 °C non-condensing

Output Levels

Level Accuracy	±(3% of amplitude + 100 mV)
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Timing

Transition Time Accuracy	±10% ± 200 ps
Period Jitter	< 0.01% + 15 ps (RMS)
Delay Jitter	< 0.01% + 15 ps (RMS)
Width Jitter	< 0.01% + 15 ps (RMS)
Phase Parameter Range	-360° to +360°
Delay and Width Resolution	3 digits (best resolution: 10 ps)
Transition Time Resolution	3 digits (best resolution: 100 ps)

TECHNOLOGY

Pulse and Pattern Generation

APPLICATIONS

Semiconductor characterization, clock generation, functional electrical testing, and physical layer device 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.