Product Fact Sheet

Agilent 81150A Pulse Function Arbitrary Noise Generator

Quad versatility, optimum signal fidelity—from anywhere at any time

1. Couple/uncouple channels/channel add
2. USB 2.0A
3. Channel 2: Trigger out; strobe out; differential output
4. Channel 1: Trigger out; strobe out; differential output
5. Trigger mode
6. Waveform mode
7. Advanced mode: Modulation/sweep/bust

Choose your hardware

Code	Description
#001	81150A with 1 channel
#002	81150A with 2 channels
#DOC	Printed documentation
#1CP	Rack mount kit
#1A6	Z 540 calibration documents
#1A7	ISO 17025 calibration documents
#PAT	Pattern generator license

A 4-in-1 device for accelerated and accurate insight into your device

- Create pulse, sine, square, ramp, noise and arbitrary waveforms to test your device—not the source.
- A 2 Channel version can be used either as 2 independent generators or as time synchronized coupled or added.
- Integrated in one instrument, which increases signal performance, minimizes cabling, space and test time.
- Glitch free change of timing parameters (delay, frequency, transition time, width, delay cycle).
- Programming language compatible with Agilent 81101A, 81104A and 81110A pulse pattern generators.

LXI Class C compliant

www.lxistandard.org
LAN extensions for Instruments puts the power of Ethernet and the Web inside your test systems. Agilent is a founding member of the LXI consortium.

Key specifications	Description
Frequency range	1 µHz to 120 MHz (pulse)
	1 µHz to 240 MHz (sine)
Waveforms	Noise, adjustable crest factor, sine, pulse, square, ramp, arbitrary waveform
Channels	1 or 2, differential outputs
Output amplitude High voltage High bandwidth	50 Ω into 50 Ω 100 mVpp to 10 Vpp 50 mVpp to 5 Vpp
Modulation types	AM, FM, PM, FSK, PWM external and internal, double pulse
Transition times	2.5 ns to 1000 s (10% to 90%)
Output impedance	50 Ω/5 Ω selectable
Sample rate	14-bit, 2 GSa/s arbitrary waveform
Memory	Arbitrary: 512 k samples per channel Pattern: 16 Mbit per channel
Noise repetition rate	26 days
Display	Color, bright
Programming interfaces	LAN, SCPI 1992, IEEE 488.2 (GPIB), USB
Supported drivers	Agilent VEE, IVI-COM, NI Labview, Matlab®

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Pulse pattern generator selection guide

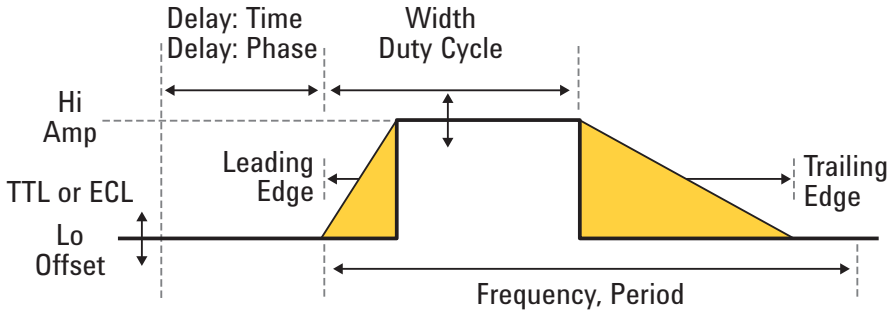
Model	Bandwidth	Channels	Voltage
81110A + 81111A	165 MHz	1 or 2 ch	100 mV to 10 V
81110A + 81112A	330 MHz	1 or 2 ch	100 mV to 10 V
81130A + 81131A	400 MHz	1 or 2 ch	100 mV to 10 V
81130A + 81132A	660 MHz	1 or 2 ch	100 mV to 10 V
81150A	120 MHz	1 or 2 ch	100 mV to 10 V
81160A	330 MHz	1 or 2 ch	50 mV to 5 V

Complementary products

Model	Description
Oscilloscopes	www.agilent.com/find/oscilloscopes
Function Arbitrary Waveform Generators	www.agilent.com/find/trueform
Power Supplies and Electronic Loads	www.agilent.com/find/power
Digital Multimeters	www.agilent.com/find/truevolt

Characteristics on a pulse pattern shape

All parameters can be selected and edited with the Agilent Pulse Pattern Generators



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Recommended service options

Additional two years of Return-to-Agilent warranty
Additional two years of Return-to-Agilent calibrations
For more information go to **www.agilent.com/find/removealldoubt**

Three-Year Warranty

www.agilent.com/find/ThreeYearWarranty
Agilent's combination of product reliability and three-year warranty coverage is another way we help you achieve your business goals: increased confidence in uptime, reduced cost of ownership and greater convenience.

Typical applications

- Automotive busses physical layer receiver test (CAN, LIN, FlexRay, MOST, BroadR Reach)
- Sensor simulation
- Clock signal generation
- Radar distance testing
- Disc drive tests
- Noise and jitter source with selectable crest factor
- Signal source with modulation
- Pulsed IV measurements
- System trigger source
- Capture and reproduce live signals

Related literature

Pub number	Name
5980-0489E	Pulse Pattern and Function Arbitrary Generators and Arbitrary Waveform Generator
5989-6433EN	81150A and 81160A Pulse Function Arbitrary Noise Generators - Data Sheet, Ver. 1.0
5989-7860EN	81150A and 81160A Pulse Function Arbitrary Noise Generators - Application Note
5989-9364EN	Agilent Precision Digital Noise - New Noise Technology and its Application
5991-1943EN	Pulse Parameter Definitions - Application Note

www.agilent.com/find/81150

5990-4565EN

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