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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 8082A 250MHz DUAL-OUTPUT PULSE GENERATOR

The HP 8082A is a high-speed pulse generator with repetition rates above 250 MHz and independently adjustable leading and trailing edge transition times down to 1 ns. Dual outputs provide normal and complement with selectable polarity, DC offset, single/double pulse, and square-wave modes. ECL and high-speed logic characterization; dual complementary pulse drive; radar/digital timing bench work needing sub-2 ns edges. Operating Modes: single pulse double pulse square wave Related Slower Family: 8012B / 8013B to 50 MHz Size Class: bench portable Boeblingen pulse generator chassis Specs from HP 8082A service/operating manual Table 1-1 summaries and HP Memory Project catalog notes. Verify attenuator steps and exact amplitude ranges on the serial-specific manual when critical.



MODEL

HP / Agilent 8082A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

8082A

LISTING

<https://aumictechlabs.com/products/8082a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 8082A is a 250 MHz dual-output pulse generator delivering independent pulse generation across two isolated channels. Each output supports normal and complementary configurations with switchable polarity, making it suitable for digital circuit testing, signal simulation, and logic-level verification in research and production environments. The instrument provides sub-nanosecond edge control, adjustable DC offset, and selectable ECL or 5 V output

levels - all protected against short circuits, open circuits, and external voltage faults up to ± 6 V.

Technical Specifications

Frequency and Timing

Repetition rate: 1 kHz to 250 MHz

Pulse width: <2 ns to 0.5 ms variable

Transition time (leading/trailing edge): <1 ns to 0.5 ms, independently adjustable; minimum 1 ns

Delay: 2 ns to 0.5 ms adjustable

Output Levels and Impedance

Amplitude: Up to ± 5 V (5 V maximum into 50 Ω)

DC offset: Front panel adjustable

ECL output: -0.9 V to -1.7 V typical (open circuit)

Source impedance: 50 Ω $\pm 5\%$ to $\pm 10\%$ (DC); low reactance design with 98% reflection absorption up to 4 V

Reflection coefficient: 5% (ECL setting), 15% (5 V setting)

Waveform Quality

Overshoot and ringing: <+10% of pulse amplitude

Preshoot: +5% of pulse amplitude

Linearity aberration: 5 ns

Operating Modes

Single pulse operation

Double pulse operation (125 MHz maximum)

Square wave: 250 MHz maximum, 50% $\pm 10\%$ duty cycle to 100 MHz; 50% $\pm 15\%$ above 100 MHz

Output Protection

Withstands open circuit, short circuit, and external ± 6 V or ± 200 mA without damage

Key Features

Dual independent channels with separate normal and complementary outputs

Hybrid IC construction reduces power consumption and eliminates fan cooling

Superior waveform shape maintained into open-circuit loads

Trigger modes: Normal (front panel), External Trigger, Gate, External Width

Typical Applications

ECL and TTL logic circuit testing

High-speed digital signal simulation

Edge-rate and timing characterization

Toggle rate verification up to 250 MHz

Compatibility & Integration

Manufacturer: HP / Agilent / Keysight

Model: 8082A

Features & description

From manufacturer datasheet

Features

- Repetition rate greater than 250 MHz
- Independent leading/trailing transitions down to 1 ns
- Dual outputs (normal and complement)
- Pulse width down to about 2 ns class
- Double pulse up to 125 MHz; square wave to 250 MHz

8082A Characteristics / Specifications

PARAMETER	VALUE
Model	8082A
Manufacturer	Hewlett Packard
Instrument Type	High speed pulse generator
Repetition Rate	greater than 250 MHz
Period Jitter	less than 0.1 percent plus 50 ps class
Transition Times	less than 1 ns to 5 ms independently adjustable leading and trailing
Minimum Pulse Width Class	about 2 ns
Width Jitter	less than 0.1 percent plus 50 ps
Delay Jitter	less than 0.1 percent plus 50 ps
Double Pulse Maximum	125 MHz (simulates 250 MHz)
Square Wave Maximum	250 MHz; duty cycle 50 percent class
Maximum Amplitude Class	5 V into 50 ohm family table
Attenuator	two separate three-step attenuators reduce outputs
Polarity	selectable on either output
Normal Complement Relationship	reversible
DC Offset	adjustable on positive pulse outputs
Trigger Modes	four trigger modes including gate and external trigger
Trigger Output	negative going family
Operating Modes	single pulse double pulse square wave
Alias	HP 8082A
Related Slower Family	8012B / 8013B to 50 MHz
Size Class	bench portable Boeblingen pulse generator chassis

8082A Specifications

PARAMETER	VALUE
HP 8082A Pulse Generator to 250 MHz	Overview
Applications	ECL and high-speed logic characterization; dual complementary pulse drive; radar/digital timing bench work needing sub-2 ns edges.
Key Features	- Repetition rate greater than 250 MHz
Technical Specifications	Model: 8082A

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	
Specs from HP 8082A service/operating manual Table 1-1 summaries and HP Memory Project catalog notes. Verify attenuator steps and exact amplitude ranges on the serial-specific manual when critical.	

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

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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.