

**Aumictech**

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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 8012B 50Mhz Pulse Generator

The HP 8012B is a general-purpose pulse generator with repetition rates from 1 Hz to 50 MHz and variable transition times down to 5 ns, suited to TTL-era digital testing. It provides pulse, double-pulse, and square-wave modes with selectable polarity, normal/complement format, internal 50 ohm load switching, and DC offset. TTL and general digital IC stimulus; timing and width characterization; double-pulse and square-wave bench work; cascading via trigger output to another 8012B/8013B. TTL and general digital IC stimulus; timing and width characterization; double-pulse and square-wave bench work; cascading via trigger output to another 8012B/8013B.



MODEL

HP / Agilent 8012B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

8012B

LISTING

<https://aumictechlabs.com/products/8012b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 8012B is a 50 MHz pulse generator engineered for digital circuit characterization and test stimulus applications. It delivers precise, low-noise pulses with fast edges across a wide range of parameters, from 1 Hz repetition rates to sub-nanosecond transition times. The instrument features dual switchable output impedances, multiple operating modes including external triggering and gating, and front-panel controls optimized for rapid setup and validation of digital logic circuits and integrated circuits. Technical Specifications Pulse Parameters Repetition Rate: 1 Hz to 50 MHz Pulse Width: 10 ns to 1 s Pulse Delay: 35 ns to 1 s Rise/Fall Time (variable): 5 ns to 0.5 s; (fixed): down to 3.5 ns Jitter: <0.1% of programmed value + 50 ps Maximum Duty

Cycle: 75% up to 10 MHz Output Specifications Amplitude (50 Ω load): 0.2 V to 5 V Amplitude (high impedance load): 0.2 V to 10 V Maximum Output: 16 V total Offset: ± 2.5 V (50 Ω source only) Source Impedance: Switchable 50 Ω / High Z Overshoot/Ringing: $\pm 5\%$ of amplitude; $+10\%$ (high impedance) Preshoot: 5% of amplitude Output Channels: Up to 2 selectable Key Features External triggering with 7 ns minimum signal width; selectable on positive or negative transition Gate mode for synchronous output control via external edge detection Operating modes: Normal, External trigger, Gate, Double Pulse, Square Wave, External Width, RZ SYM/NORM/COMPL output format selection Compact form factor: 142 mm H $\times$ 200 mm W $\times$ 330 mm D; 4 kg net weight Universal AC supply: 100/120/220/240 Vrms ($\pm 10\%$ / -15%), 48–440 Hz, 70 VA maximum Operating temperature: 0°C to 55°C Typical Applications Suitable for stimulus-response testing with digital oscilloscopes, circuit characterization, and board-level validation across multiple logic families. Compatibility & Integration Supports RTL, DTL, TTL, selected ECL, and MOS logic families. Interfaces include trigger inputs, gate inputs, trigger outputs, and format selection connectors for integration into automated test systems.

Features & description

From manufacturer datasheet

Features

- Repetition rate 1 Hz to 50 MHz
- Transition times variable down to 5 ns
- Pulse width less than 10 ns to 1 s
- Output to 5 V into 50 ohm (10 V open) with INT LOAD; 10 V into 50 ohm with INT LOAD out
- Double pulse up to 25 MHz (simulates 50 MHz); square wave 0.5 Hz to 25 MHz

8012B Characteristics / Specifications

PARAMETER	VALUE
Model	8012B
Manufacturer	Hewlett Packard
Instrument Type	Pulse generator
Repetition Rate	1 Hz to 50 MHz in four ranges
Period Jitter	less than 0.1 percent plus 50 ps
Pulse Width	less than 10 ns to 1 s in four ranges
Width Jitter	less than 0.1 percent plus 50 ps
Pulse Delay	less than 35 ns to 1 s in four ranges
Delay Jitter	less than 0.1 percent plus 50 ps
Maximum Duty Cycle To 10 MHz	greater than 75 percent
Maximum Duty Cycle At 50 MHz	about 40 percent; up to 100 percent in COMPL mode
Transition Time Minimum	5 ns class
Preshoot	less than plus/minus 5 percent of pulse amplitude
Maximum Output INT LOAD In	5 V across 50 ohm; 10 V open circuit
Maximum Output INT LOAD Out	10 V across 50 ohm
Attenuator Minimum INT LOAD In	0.2 V
Attenuator Minimum INT LOAD Out	0.4 V
Source Impedance INT LOAD In	50 ohm plus/minus 10 percent shunted by typically 20 pF
DC Offset INT LOAD In	plus/minus 2.5 V across 50 ohm independent of amplitude
Square Wave Rate	0.5 Hz to 25 MHz
Square Wave Duty Cycle	50 percent plus/minus 5 percent to 1 MHz; plus/minus 15 percent at 25 MHz
Double Pulse Maximum	25 MHz (simulates 50 MHz)
Trigger Output	greater than +1 V across 50 ohm; 16 ns plus/minus 10 ns wide
Polarity	positive or negative selectable
Output Format	symmetrical normal or complement selectable

PARAMETER	VALUE
Mains	100/120/220/240 V
Alias	HP 8012B

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 8012B operating and service manual. ConfirmAversusBfront-panel labeling; 8012A is the earlier related model.

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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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.