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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 8013B 50 MHZ DUAL-OUTPUT PULSE GENERATOR

HP 8013B Pulse Generator 1 Hz to 50 MHz Dual Channel Class The HP 8013B shares the 8012B family timing architecture (1 Hz to 50 MHz repetition, pulse width less than 10 ns to 1 s, delay less than 35 ns to 1 s) with dual-output capability suited to complementary or two-channel digital stimulus. Output amplitude reaches 5 V into 50 ohm (10 V without 50 ohm termination) in the family table. Compact bench form factor about 200 × 145 × 280 mm. Two-channel TTL/digital timing tests; complementary drive; general pulse and square-wave laboratory use; trigger cascading within the 8012/8013 family. The HP 8013B shares the 8012B family timing architecture (1 Hz to 50 MHz repetition, pulse width less than 10 ns to 1 s, delay less than 35 ns to 1 s) with dual-output capability suited to complementary or two-channel digital stimulus. Output amplitude reaches 5 V into 50 ohm (10 V without 50 ohm termination) in the family table. Compact bench form factor about 200 × 145 × 280 mm. Two-channel TTL/digital timing tests; complementary drive; general pulse and square-wave laboratory use; trigger cascading within the 8012/8013 family.



MODEL

HP / Agilent 8013B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

8013B

LISTING

<https://aumictechlabs.com/products/8013b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 8013B is a dual-output pulse generator delivering independent pulse control across two channels from 1 Hz to 50 MHz. It generates simultaneously positive and negative pulse trains with continuously adjustable width, delay, amplitude, and polarity, making it suitable for timing validation and digital circuit characterization across a wide range of electronic applications.

Technical Specifications

Frequency & Repetition Rate Frequency range: 1 Hz to 50 MHz Repetition rate: continuously adjustable 1 Hz to 50 MHz in four ranges

Pulse Parameters Pulse width: continuously adjustable from <10 ns to 1 s Pulse delay: continuously adjustable from <35 ns to 1 s; minimum 17 ns typical Rise/fall time: fixed at 3.5 ns or variable from 5 ns to 0.5 s

Output Characteristics Output voltage: 0.2 V to 10 V into 50 Ω ; maximum 16 V; adjustable via four-step attenuator down to 0.4 V Output impedance: 50 $\Omega \pm 3\%$ switchable; 50 $\Omega \pm 3\%$ shunted by typically 20 pF with internal load connected or switched out DC offset: ± 2.5 V across 50 Ω with internal load connected; automatically switched off with internal load disconnected

Output modes: normal, complement, and double pulse capability; square wave adjustable 0.5 Hz to 25 MHz in four ranges

Timing Accuracy Delay jitter: <0.1% + 50 ps Period jitter: 0.8 V either polarity with width >7 ns; maximum input amplitude 7 V

External triggering capability up to 50 MHz Synchronous gating via gate input (>1.5 V or >1 k Ω to ground) Trigger output with 25 ns $\pm$ 8 ns delay from leading edge of trigger input

Trigger input impedance: 50 $\Omega \pm 10\%$, AC-coupled

Typical Applications Logic circuit timing and validation Digital signal path characterization Timing measurements in test and measurement systems High-frequency pulse train generation and analysis

Compatibility & Integration The 8013B integrates external trigger and gate signals for synchronized multi-channel operation, with selectable source impedance matching standard 50 Ω test environments.

Features & description

From manufacturer datasheet

Features

- Family repetition 1 Hz to 50 MHz; square 0.5 Hz to 25 MHz • Pulse width less than 10 ns to 1 s; delay less than 35 ns to 1 s • Dual-channel oriented 8013B layout versus single-channel 8012B • Output to 5 V (10 V open / unloaded class) • External trigger/gate family modes

8013B Characteristics / Specifications

PARAMETER	VALUE
Model	8013B
Manufacturer	Hewlett Packard
Instrument Type	Pulse generator
Repetition Rate	1 Hz to 50 MHz
Square Wave Rate	0.5 Hz to 25 MHz
Pulse Width	less than 10 ns to 1 s in four ranges
Pulse Delay	less than 35 ns to 1 s in four ranges
Maximum Output Into 50 Ohm	5 V
Maximum Output Open Class	10 V
Period Jitter Family	less than 0.1 percent plus 50 ps
Width Jitter Family	less than 0.1 percent plus 50 ps
Delay Jitter Family	less than 0.1 percent plus 50 ps
Maximum Duty Cycle Family To 10 MHz	greater than 75 percent
Transition Time Family	variable down to 5 ns class
Trigger Output Family	greater than +1 V across 50 ohm
Polarity Selectable	yes
Normal Complement Selectable	yes
External Control Modes	external trigger and gate family modes
Size WHD	200 mm x 145 mm x 280 mm
Mains	100/120/220/240 V
Related Single Channel	8012B
Related Predecessor	8013A
Alias	HP 8013B
Operating Temperature Class	lab ambient 0 to 55 C class instruments
Operating temperature	Class: lab ambient 0 to 55 C class instruments

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: lab ambient 0 to 55 C class instruments
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Operating Temperature Class	lab ambient 0 to 55 C class instruments Notes Timing and amplitude rows from HP 8012B/8013B family manuals and catalog summaries. Confirm dual-output wiring andAversusBreversion on the faceplate.

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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PARAMETER	VALUE
Model	8013B
Manufacturer	Hewlett Packard
Instrument Type	Pulse generator
Repetition Rate	1 Hz to 50 MHz
Square Wave Rate	0.5 Hz to 25 MHz
Pulse Width	less than 10 ns to 1 s in four ranges
Pulse Delay	less than 35 ns to 1 s in four ranges
Maximum Output Into 50 Ohm	5 V
Maximum Output Open Class	10 V
Period Jitter Family	less than 0.1 percent plus 50 ps
Width Jitter Family	less than 0.1 percent plus 50 ps
Delay Jitter Family	less than 0.1 percent plus 50 ps
Maximum Duty Cycle Family To 10 MHz	greater than 75 percent
Transition Time Family	variable down to 5 ns class
Trigger Output Family	greater than +1 V across 50 ohm
Polarity Selectable	yes
Normal Complement Selectable	yes
External Control Modes	external trigger and gate family modes
Size WHD	200 mm x 145 mm x 280 mm
Mains	100/120/220/240 V
Related Single Channel	8012B
Related Predecessor	8013A
Alias	HP 8013B
Operating Temperature Class	lab ambient 0 to 55 C class instruments

Notes

Timing and amplitude rows from HP 8012B/8013B family manuals and catalog summaries. Confirm dual-output wiring and Aversus Brevision on the faceplate.

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.