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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 8012A PULSE GENERATOR

HP 8012A Pulse Generator Predecessor to 8012B The HP 8012A is the earlier single-channel pulse generator in the 8012 family, providing general-purpose pulses with variable transition times for TTL-era testing. The later 8012B refined the same 1 Hz to 50 MHz class architecture with documented width/delay/jitter tables used across the B-series manuals. General digital pulse stimulus; laboratory timing tests; educational and bench digital work. The HP 8012A is the earlier single-channel pulse generator in the 8012 family, providing general-purpose pulses with variable transition times for TTL-era testing. The later 8012B refined the same 1 Hz to 50 MHz class architecture with documented width/delay/jitter tables used across the B-series manuals. General digital pulse stimulus; laboratory timing tests; educational and bench digital work.



MODEL

HP / Agilent 8012A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

8012A

LISTING

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

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 8012A Pulse Generator delivers precise, programmable pulse generation across a wide frequency range, making it essential for circuit characterization, signal integrity testing, and time-domain analysis. Engineers rely on this instrument for its independent control of pulse width, rise/fall times, and repetition rate - all with exceptionally low jitter. The 8012A supports external triggering, synchronous gating, and cascade operation, enabling complex test sequences and multi-instrument synchronization. Technical Specifications Pulse Generation Repetition Rate: 1 Hz

to 50 MHz in four ranges with vernier adjustment Pulse Width: 75% from 1 Hz to 10 MHz; 40% at 50 MHz Period Jitter: $<0.1\% + 50 \text{ ps}$ on any repetition rate Width Jitter: 30 ns): $<5\%$ maximum deviation (10–90% points) Overshoot/Ringing: $<\pm 5\%$ of pulse amplitude Preshoot: 1.5 Vpp or pulses $>0.8\text{V}$, minimum 7 ns wide Trigger Output: $>+1\text{V}$ across 50Ω ; $16 \text{ ns} \pm 10 \text{ ns}$ width Trigger Polarity Delay: $25 \text{ ns} \pm 8 \text{ ns}$ Gate Input: DC-coupled; $\sim 1600\Omega$ impedance; TTL compatible; enables at $>+1.5\text{V}$ or $>3000\Omega$ to ground External Triggering: 0 to 50 MHz repetition rate Synchronous Gating: Output pulses phase-aligned with gate leading edge Key Features Four independent ranges for repetition rate and pulse width with vernier fine-tuning Minimal jitter specification ensures signal fidelity in high-speed testing Asymmetrical rise/fall time control with 100:1 ratio capability TTL-compatible gate input for programmable pulse train control Trigger output suitable for cascading multiple 8012A units Independently adjustable DC offset across all amplitude settings Typical Applications Digital circuit testing and timing characterization High-speed pulse response measurement Device switching and transition analysis Multi-unit synchronization in test systems Pulse shaping and edge-rate studies Compatibility & Integration The 8012A accepts both sinusoidal and TTL-level trigger signals, supports external gating for repeatable test sequences, and generates trigger outputs compatible with other 8012A units and standard test instruments. Gate input impedance and voltage thresholds follow TTL conventions, simplifying integration into automated test environments.

Features & description

From manufacturer datasheet

Features

- 8012 family pulse generator architecture
- Variable transition times for TTL testing
- Pulse repetition spanning hertz to tens of megahertz class
- Selectable polarity and format features per family
- Trigger output for cascading

8012A Characteristics / Specifications

PARAMETER	VALUE
Model	8012A
Manufacturer	Hewlett Packard
Instrument Type	Pulse generator
Family	8012 / 8013 pulse generators
Successor Model	8012B
Repetition Rate Class	1 Hz to 50 MHz family
Pulse Width Class	less than 10 ns to 1 s family
Pulse Delay Class	less than 35 ns to 1 s family
Transition Time Minimum Class	5 ns family
Maximum Output Into 50 Ohm Class	5 V family
Maximum Output Open Class	10 V family
Square Wave Class	0.5 Hz to 25 MHz family
Double Pulse Class	up to 25 MHz family
Period Jitter Class	less than 0.1 percent plus 50 ps family
Width Jitter Class	less than 0.1 percent plus 50 ps family
Duty Cycle High Rate Class	decreases toward about 40 percent at 50 MHz family
Source Impedance Class	50 ohm with internal load switched in
DC Offset Class	available with internal load in
Trigger Output Class	greater than +1 V into 50 ohm family
Mains	100/120/220/240 V class
Alias	HP 8012A
Related Dual Channel	8013A / 8013B

8012A Specifications

PARAMETER	VALUE
HP 8012A Pulse Generator Predecessor to 8012B	Overview
Applications	General digital pulse stimulus; laboratory timing tests; educational and bench digital work.
Key Features	- 8012 family pulse generator architecture
Technical Specifications	Model: 8012A

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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DC Offset Class	available with internal load in
Trigger Output Class	greater than +1 V into 50 ohm family
Mains	100/120/220/240 V class
Alias	HP 8012A
Related Dual Channel	8013A / 8013B
Notes	
Dense numeric rows are the published 8012B family table applied as class values for the 8012A predecessor. Prefer the serial-specific A-series manual when warranty-grade limits are required.	

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.