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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 8160A 50MHz PULSE GENERATOR

HP 8160A Programmable Pulse Generator 50 MHz The HP 8160A is a microprocessor-based programmable pulse generator for bench and automatic test. Maximum repetition rate is 50 MHz with period from 20 ns to 999 ms. Amplitude reaches 10 V into 50 ohm (matched source) or 20 V with the higher source-impedance path. Variable leading/trailing transitions down to 6 ns minimum, double-pulse and burst modes, nine stored setups, and full HP-IB control eliminate operator scope checks in ATE sequences. Option 020 adds a second channel with independent parameters except common rate. The HP 8160A is a microprocessor-based programmable pulse generator for bench and automatic test. Maximum repetition rate is 50 MHz with period from 20 ns to 999 ms. Amplitude reaches 10 V into 50 ohm (matched source) or 20 V with the higher source-impedance path. Variable leading/trailing transitions down to 6 ns minimum, double-pulse and burst modes, nine stored setups, and full HP-IB control eliminate operator scope checks in ATE sequences. Option 020 adds a second channel with independent parameters except common rate. Digital device stimulus in ATE; dual-channel timing tests with Option 020; burst and double-pulse characterization; MATE-approved programmable pulse stimulus.



MODEL

HP / Agilent 8160A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

8160A

LISTING

<https://aumictechlabs.com/products/8160a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 8160A is a 50 MHz programmable pulse generator engineered for precision pulse generation in research, manufacturing, and service environments. This microprocessor-controlled instrument delivers independent control over pulse parameters with minimal interdependencies, simplifying complex waveform creation. The standard single-channel configuration supports optional dual independent channels for synchronous or complex pulse generation. All parameters - output levels, transition times, pulse width, and delay - are fully programmable via front-panel pushbuttons or remote control, with nine memory locations for storing operating states.

Technical Specifications

Parameter	Range	Resolution	Best Case
Pulse Period	20.0 ns to 999 ms	3-digit	100 ps
Pulse Width	10.0 ns to 999 ms	3-digit	100 ps
Delay/Double Pulse Spacing	0.00 ns to 999 ms	3-digit	100 ps
Rise/Fall Time	6.0 ns to 9.99 ms	Fixed 3 ns or variable 6 ns options	
Output Amplitude	0.10 V to 9.99 V into 50 Ω ; maximum 10 V (20 V into 50 Ω)		
Output Impedance	50 Ω (typical)		
Accuracy & Jitter	Period accuracy: $\pm 3\% \pm 0.3$ ns (30 ns)		

System Microprocessor-controlled with alphanumeric display **Channels:** Single standard; Option 020 adds dual independent channels **Memory:** 9 programmable locations **Power:** 115/230 V AC $\pm 10\%$, 48-66 Hz; 675 VA maximum Rack-mount compatible with rear-panel connectors

Manufactured in Germany

Key Features

- Independent parameter control eliminates interdependencies
- Pushbutton operation with repeatable programming
- Sub-nanosecond pulse width and delay resolution
- Transition times from 6 ns with $< 5\%$ preshoot/overshoot
- HP-IB interface with remote/local operation capability
- Stable jitter performance across frequency ranges

Typical Applications

- Logic and digital circuit testing
- Timing and synchronization verification
- Automated test equipment (ATE) integration
- High-speed pulse characterization
- Double-pulse and complex waveform generation

Compatibility & Integration

HP-IB programming interface enables integration into automated test systems. Remote operation mode supports both local and remote control modes for flexible test environments.

Features & description

From manufacturer datasheet

Features

- 50 MHz maximum repetition rate
- Independent period, delay, width, transition, and level controls
- Incompatible-setting annunciators
- Nine store/recall setups
- Option 020 second channel (common rate)
- Option 001 rear-panel I/O

8160A Characteristics / Specifications

PARAMETER	VALUE
Model	8160A
Manufacturer	Hewlett Packard
Instrument Type	Programmable pulse generator
Maximum Repetition Rate	50 MHz
Period Range	20 ns to 999 ms
Delay Range	0.0 ns to 999 ms
Double Pulse Range	20.0 ns to 999 ms
Pulse Width Range	10.0 ns to 999 ms
Amplitude Into 50 Ohm Matched	10 V maximum
Amplitude HighZSource Path	20 V maximum
High Low Level Programming Span Class	-19.9 to +19.9 V depending on source and load
Minimum Transition Time Variable	6 ns
Fixed Transition Time Option Class	3 ns fixed transition times (product summaries)
Period Accuracy Class	less than 2 percent typical; never more than 3 percent (HP Journal)
Amplitude Accuracy Class	less than 2 percent (HP Journal)
Width And Delay Accuracy Class	less than 1 percent (HP Journal)
Transition Accuracy Class	less than 3 percent (HP Journal)
Operating Modes	continuous; external trigger; gate; burst; double pulse
Stored Setups	9
Remote Interface	HP-IB
Related Dual Pulse Family	8161A
Alias	HP 8160A; Agilent 8160A

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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Remote Interface	HP-IB
Option 001: rear panel inputs and outputs	
Option 020: second channel with independent delay width double-pulse transitions and output amplifier	
Option 907: front handle kit	
Option 908: rack flange kit	
Option 909: rack handle and flange combination	
Related Dual Pulse Family: 8161A	
Alias: HP 8160A; Agilent 8160A	
Notes	
Numeric ranges from HP 8160A product literature and HP Journal introduction of the 8160A. Accuracy percentage	

rows are from the HP Journal characterization summary-confirm against the installed operating/service manual revision for warranted limits.

Ordering Information

OPTION	DESCRIPTION
Option 020	addsecond channel with independent parameters except common rate.
Option 001	rear-panel I/O

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.