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Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 8011A 20MHz PULSE GENERATOR

The HP 8011A is a versatile 20 MHz pulse generator with fixed 10 ns transitions and output amplitude adjustable from 0.25 V to 16 V into 50 ohm. OEM product documentation specifies repetition rates from 0.1 Hz to 20 MHz, pulse widths from 25 ns to 100 ms, and selectable positive, negative, or symmetrical outputs. Intended for general digital testing, TTL/CMOS bench work, educational labs, and service applications needing a simple, reliable pulse source with wide amplitude and width coverage. Positive, negative, or symmetrical output selection. Output polarity: positive, negative, or symmetrical. Instrument class: general-purpose pulse generator. Control style: analog vernier with range switching. Specifications are from HP/Agilent 8011A published product overviews and specification summaries. For calibration uncertainties beyond these rated limits, refer to the operating/service manual performance tests.



MODEL

HP / Agilent 8011A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

8011A

LISTING

<https://aumictechlabs.com/products/8011a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 8011A is a 20 MHz pulse generator engineered for digital system development, circuit characterization, and general-purpose pulse generation. It delivers independently adjustable pulse width, repetition rate, delay, and amplitude with multiple output formats including positive, negative, TTL, and complementary signals. Manual and external triggering support frequencies from DC to 20 MHz, while synchronous and asynchronous gating options provide flexible control over pulse train generation. Low jitter performance and stable transition times

make this instrument suitable for timing-critical applications and signal integrity testing. Technical Specifications Pulse Generation Maximum repetition rate: 20 MHz Repetition rate range: 0.1 Hz to 20 MHz (5 ranges with continuous vernier adjustment) Square wave frequency: 0.05 Hz to 10 MHz or 0.15 Hz to 10 MHz Pulse width: 25 ns to 100 ms (four ranges with continuous vernier) Pulse width jitter: $<0.1\% + 50$ ps of setting Fixed transition times: <10 ns or down to 3.5 ns Variable transition times: 5 ns to 0.5 s or 10 ns to 2 s Overshoot, ringing, preshoot: $<\pm 5\%$ of pulse amplitude Pulse delay: <100 ns to 3 s or 35 ns to 1 s Pulse delay jitter: 80% (0.3 Hz – 1 MHz); $>50\%$ (1–20 MHz) Output Characteristics Output amplitude: 0.25 V to 16 V (three ranges with vernier) Output impedance: 50 ohms or selectable high impedance TTL output: +4.6 V (50 ohm impedance) Simultaneous outputs: Positive, negative, and TTL Maximum external voltage: ± 10 V Triggering and Gating Trigger source: Manual pushbutton or external signal (DC to 20 MHz) External trigger impedance: 50 ohms $\pm 10\%$ or 1 k ohms, dc coupled External trigger sensitivity: 1 V Maximum external trigger input: ± 5 V or ± 10 V Trigger output: Decoupled 50 ohm, $>+2$ V amplitude across 50 ohms Gate input impedance: 1 k ohms, dc coupled Key Features Five repetition rate ranges with continuous adjustment for precision timing Four pulse width ranges spanning 25 ns to 100 ms Low jitter performance $<0.1\% + 50$ ps on both width and delay Fast transition times as low as 3.5 ns for edge-sensitive testing Independent control of pulse delay up to 3 s Multiple simultaneous output formats for flexible circuit interfacing Switchable 50 ohm and high-impedance output configurations Synchronous and asynchronous gating for pulse train control Typical Applications Digital logic circuit development and validation Timing and synchronization testing Signal integrity measurements Component characterization requiring precise pulse timing Test automation with external triggering Compatibility & Integration External triggering supports frequencies from DC to 20 MHz with 1 V sensitivity. TTL-compatible output integrates directly with digital systems. Switchable output impedance accommodates both 50 ohm and high-impedance loads. Trigger output delivers standardized levels for system synchronization.

8011A Characteristics / Specifications

PARAMETER	VALUE
Repetition rate	0.1 Hz to 20 MHz
Transition times	10 ns fixed
Pulse width	25 ns to 100 ms in four ranges
Width adjustment	vernier continuous within each range
Output amplitude	0.25 V to 16 V in three ranges
Amplitude adjustment	vernier continuous within each range
Output polarity	positive, negative, or symmetrical
Output impedance	50 ohm
Maximum repetition rate	20 MHz
Minimum pulse width	25 ns
Maximum pulse width	100 ms
Minimum amplitude	0.25 V
Maximum amplitude	16 V
Width range count	4
Amplitude range count	3
Instrument class	general-purpose pulse generator
Primary load	50 ohm
Control style	analog vernier with range switching
Minimum repetition rate	0.1 Hz
Fixed transition time	10 ns
Minimum width	25 ns
Maximum width	100 ms

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	
Specifications are from HP/Agilent 8011A published product overviews and specification summaries. For calibration uncertainties beyond these rated limits, refer to the operating/service manual performance tests.	

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.