

# PULSE GENERATORS

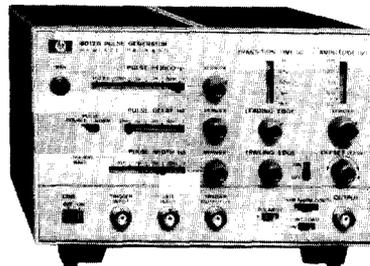
## 20/50 MHz Pulse Sources

Models 8011A/8012B & 8013B

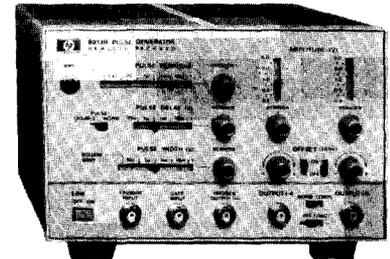
- Repetition rates up to 50 MHz
- Fixed transitions down to 3.5 ns
- Variable transitions from 5 ns to 0.5 s
- Output voltage up to 16V
- Up to 2 ch., select. output formats
- Selectable source impedance



HP 8011A



HP 8012B



HP 8013B

### Specifications

| Model Parameter   | HP 8011A                        | HP 8012B                        | HP 8013B                        |
|---|---------------------------------|---------------------------------|---------------------------------|
| Period  | 50ns to 10s                     | 20ns to 1s                      | 20ns to 1s                      |
| Pulse width   | 25ns to 100ms                   | 10ns to 1s                      | 10ns to 1s                      |
| Duty Cycle in pulse compl.                                      | >50%<br>100%                    | 40% to 75%<br>100%              | 40% to 75%<br>100%              |
| Pulse delay   | —                               | 35ns to 1s                      | 35ns to 1s                      |
| Transition Times (int. Load IN)                                 | <10ns fixed<br>—                | 6ns to 0.5s<br>5ns to 0.5s      | 5ns fixed<br>3.5ns fixed        |
| jitter  | 0.1% of prog. value + 50ps      | 0.1% of prog. value + 50ps      | 0.1% of prog. value + 50ps      |
| max. out. voltage 50 Ohm source to 50 Ohm load into open offset | 8V<br>16V<br>—                  | 5V<br>10V<br>±2.5V              | 5V<br>10V<br>±2.5V              |
| overshoot, ringing may increase to:                             | <±5%<br><±10% if ccw of vernier | <±5%<br><±10% for int. load OUT | <±5%<br><±10% for int. load OUT |
| switchable Source impedance 50 Ohm / high imp                   | yes                             | yes                             | yes                             |
| Square wave, max frequency                                      | 10MHz                           | 25MHz                           | 25MHz                           |

### Supplemental Specifications

(values describe typical, non-warranted performance)

### Operating Modes

#### HP 8011A

**Manual:** front panel pushbutton for generating single pulse

**Ext. Repetition Rate:** 0 Hz to 20 MHz. In square wave mode, output frequency is half the input frequency.

**Trigger source:** manual or ext. signal. Min. ext. signal width > 10 ns.

**Pulse burst mode (option 001):** preselected number (up to 9999) of pulses generated on receipt of trigger.

**Burst trigger source:** man. or ext. signal. Min. signal width is 25 ns.

#### HP 8012B & HP 8013B

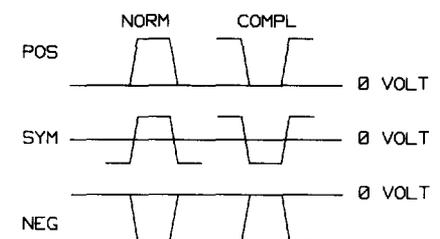
**Manual:** front panel pushbutton for generating single pulse

**Ext. Repetition Rate:** 0 Hz to 50 MHz. In square wave mode, output frequency is half the input frequency.

**Trigger source:** manual or ext. signal. Min. ext. signal width > 7 ns.

**Gate mode:** Last pulse is completed even if the gate signal ends during pulse.

The HP 8011A 20 MHz, HP 8012B and HP 8013B 50 MHz Pulse Sources are versatile and reliable low-cost pulse generators. They provide the suitable solution to almost all digital logic testing problems. The simple and logical operation, which is achieved by a clearly designed front panel, guarantees rapid familiarization; the risk of setting up incompatible parameters is minimized. The instruments feature normal and complement output modes and a switchable internal 50 Ohm source. These features and performance emphasize the cost effectiveness of these models for many applications.



### General

**Operating temperature:** 0°C to 55°C

**Humidity:** 95% RH from 0°C to 40°C

**Power:** 100/120/220/240 Vrms, +5%, -10%, 48 to 440 Hz, 70 VA max.

**Weight:** 4 kg (9 lbs)

**Dimensions (HxWxD):** 142 mm x 200 mm x 330 mm  
5.6 in x 7.9 in x 13 in

### Ordering Information

HP 8011A 20 MHz Pulse Generator

HP 8012B 50 MHz Pulse Generator

HP 8013B 50 MHz Pulse Generator

### Options

001 Counted Burst for HP 8011A

910 Additional Operating and Service Manual for HP 8011A or HP 8012B

### Price

\$1250

\$1950

\$1900

\$370

\$20

\$13

### Accessories

HP 15179 Rack Mounting Kit

Adaptor for rack-mounting one or two pulse generators HP 8011A, HP 8012B or HP 8013B

\$235

Fast-Ship Product — see page 766.