Table 1–2. Specifications

OUTPUT CHARACTERISTICS

Pulse Amplitude
0.3V to 100V into 50 ohm. 5 ranges with calibrated vernier providing continuous adjustment within ranges.
Vernier Accuracy: ± 10% of setting.

Source Impedance
Fixed 50 ohm nominal on ranges up to 10V. Selectable 50 ohm nominal or high impedance on 10–30V and 30–100V ranges. (Note: with 50 ohm source and load impedance, 10–30V and 30–100V ranges reduce to 5–15V and 15–50V respectively).

Polarity: Positive or negative, switch selectable.

Preshoot, Overshoot and Ringing: ≤ ± 5% of pulse amplitude.

Pulse Top Perturbations: ≤ ± 5% of pulse amplitude.

Transition Times: ≤ 15ns for leading and trailing edges.

TIMING

Repetition Rate
10 Hz to 10 MHz in 6 decade ranges. In 30V–100V amplitude range, maximum repetition rate is 4 MHz. Calibrated vernier provides continuous adjustment within ranges.
Vernier Accuracy: ± (10% of setting + 1% of full scale).
Period Jitter: ≤ 0.1% + 300ps.

Pulse Position
Pulse Delay
Pulse can be delayed with respect to the Trigger Output from +10ns [+ fixed delay] to +10ms. [Fixed delay is 50 ns ± 10ns].
Pulse Advance
Pulse can be delayed with respect to the Trigger Output from +10ns [– fixed delay] to +10ms. [Fixed delay is 50 ns ± 10ns].
Controls
5 decade ranges with calibrated vernier providing continuous adjustment within ranges.
Vernier Accuracy: ± (10% of setting + 1% of full scale) + fixed delay.
Maximum Pulse Position Duty Cycle: ≥ 50%.
Position Jitter: ≤ 0.1% + 500ps.

Pulse Width
25ns to 10ms in 6 decade ranges. Calibrated vernier provides continuous adjustment within ranges.
Vernier Accuracy: ± (10% of setting + 1% of full scale + 5ns).
Width Jitter: ≤ 0.1% + 500ps.

Maximum Duty Cycle
≥ 10% for 30–100V amplitude range.
≥ 50% for all other ranges. (max. 10 ms width)

Constant Duty Cycle Mode (Disabled in External Trigger Mode)
Duty cycle of output pulse (hence output power) remains constant when the pulse period is changed. In this mode the duty cycle limits are:
Typically 8% fixed for 10M – 1 MHz frequency range (max. frequency 4 MHz without loss of amplitude)
2.5% to 10% for 1 M – .1 MHz frequency range
.25% to 10% for .1 MHz – 10 kHz frequency range
0.1% to 10% for all other frequency ranges
Calibrated vernier provides continuous adjustment within duty cycle ranges.
Vernier Accuracy: ± (15% of setting + 1% of full scale).

Double Pulse
5 MHz maximum in all ranges except 30V–100V range. In 30V–100V range, the maximum frequency is 2 MHz. Minimum separation is 100ns.

Trigger Output
Amplitude: ≥ + 5V (from 50 ohm into open circuit).
Pulse Width: 10ns typical.
Source Impedance: 50 ohm nominal.

EXTERNALLY CONTROLLED OPERATION

External Trigger Mode An output pulse is generated for each input pulse.

Gate Mode
Gating signal turns on repetition rate generator. First pulse occurs after start of gate signal, and last pulse is always completed even if gate ends during generation of last pulse.

Burst Mode (Optional)
Preselected number of pulses generated on receipt of trigger signal.
Number of Pulses: 1 to 9999.
Minimum Spacing between Bursts: 200ns.

External Input
Repetition Rate : DC to 10 MHz.
Sensivitiy: 500mV peak to peak, dc coupled.
Slope: Positive or negative.
Trigger Level: Continuously adjustable from –5V to +5V.
Maximum Input Level: ± 100V.
Trigger Pulse Width: ≥ 10ns.
Input Impedance: 10k ohm nominal.

Manual
Pushbutton can be used for:
– triggering single pulses (EXT TRIGGER Mode)
– generating gate signals (GATE Mode)
– triggering pulse bursts (BURST Mode)

GENERAL

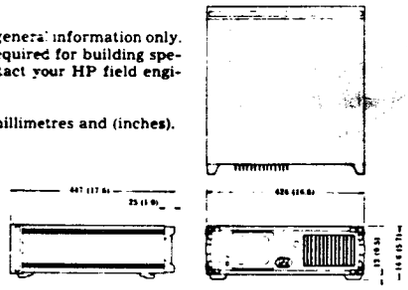
Environmental : Instrument operates within 0°C to 55°C.

Power Requirements
100V, 120V, 220V or 240V, +5%, –10%. 48 Hz to 66 Hz, 360VA max.

Weight : Net 13.6 kg (30.1 lb), shipping 15.6 kg (34.3 lb).

Dimensions
133mm high, 426mm wide, 422mm deep (5.2 x 16.8 x 16.6 inches).

NOTES
1. Dimensions are for general information only. If dimensions are required for building special enclosures, contact your HP field engineer.
2. Dimensions are in millimetres and (inches).



OPTIONS

Option 001
Burst. Preselected number of pulses generated on receipt of trigger signal. Number of Pulses: 1 to 9999.

Option 907
Front Handle Kit, part number 5061–0089.

Option 908
Rack Mounting Kit, part number 5061–0079

Option 909
Combined Front Handle and Rack Mounting Kit, part number 5061–0083.

Option 910
Additional Operating and Service Manual

Data subject to change