

# PULSE GENERATORS

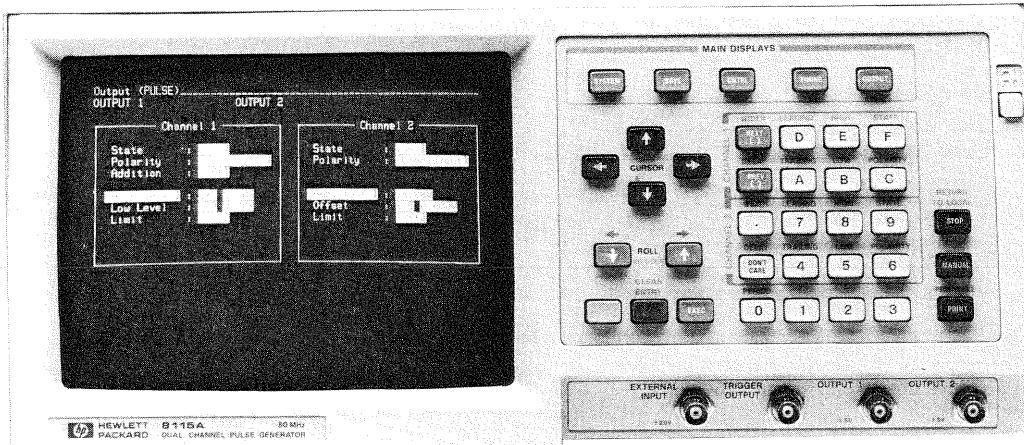
## 50 MHz Dual Channel Pulse Generator

### Model 8115A

435

- Two 50 MHz output channels
- Variable transitions, width, delay
- Variable high and low level

- Channel addition mode
- Control capabilities
- CRT for convenient operation



HP 8115A



#### Bench and ATE-System suitable

The HP 8115A is a fully programmable 50 MHz dual channel pulse generator, which delivers pulse trains with up to 32 Vp-p into high impedance and variable transitions from 6.5 ns up to 95 ms.

The HP 8115A is suitable to operate as a stand-alone instrument or in an ATE-System. The specifications are for a wide temperature range, 0°C to 55°C, useful for ATE-Systems. Much higher accuracy is achieved in the limited temperature range 20°C to 30°C; this is useful for bench-top applications which require higher accuracy. The high and low level for each channel is independently programmable. The output voltages can also be programmed as amplitude and offset.

#### Two Channels / Channel Addition

Two channels are available; they are designed as parameter-independent but synchronous outputs. With the delay capability, phase-shifted signals can be achieved. The two channels can be added, thus 3-level, 4-level signals or spikes can be created.

#### Specifications

Specifications describe the instrument's warranted performance (30 minutes warm-up, 50-ohm load) at 0°C to 55°C [20°C to 30°C] ambient temperature.

#### Timing Parameters

(measured at 50% of amplitude with fastest edges).

#### Common Specifications:

Resolution	3 digits (best case 100 ps)
Repeatability	factor 4 better than accuracy
RMS-jitter*	0.05% of programmed value + 30 ps
Period (PER)	20 ns to 950 ms
Accuracy	±5% of progr. value ±2 ns [±2% ±1 ns]
Delay (DEL)	75 ns to 950 ms (max: PER + 55 ns)
Accuracy	±5% of progr. value ±4 ns [±2% ±4 ns]

\*see page 433

#### Double Pulse (DOUB)

Accuracy

20 ns to 950 ms (max: PER - WID)  
±5% of progr. value ±2 ns [±2% ±2 ns]

#### Width (WID)

Accuracy

DEL and DOUB are mutually exclusive  
10 ns to 950 ms (max: PER - 10 ns)  
±5% of progr. value ±2 ns [±2% ±2 ns]

#### Linear Transitions (between 10% and 90% of ampl)

Range

6.5 ns to 95 ms

Accuracy

±5% of progr. value ±2 ns [±5% ±2 ns]

#### Output (voltages double when driving into open)

High Level

-7.90 V to +8.00 V

Low Level

-8.00 V to +7.90 V

Resolution

3 digits (best case 10 mV)

Level-Accuracy

±1% of progr. value ±3% of ampl.

±40 mV [±1% ±1% ±20 mV]

Repeatability

factor 4 better than accuracy

#### Supplemental Specifications

Trigger Modes

Manual, Auto, Trigger, Gate

Addition

Adds up channel 2 to channel 1.

Control Modes

High level, Period, Delay, Width

#### General

Storage Temperature

-40°C to +65°C

Operating Temperature

0°C to 55°C

Power

100-120/220-240 Vrms, ±10%, 450 VA

max., 48-66 Hz

Weight

16 kg (35.5 lb)

Dimensions (H\*W\*D)

190 mm \* 426 mm \* 584 mm,

[7.5 in \* 16.75 in \* 23 in]

Recalibration Period

1 year recommended

#### Ordering Information

HP 8115A 50 MHz Dual Channel Pulse Generator

#### Options

908 Rack Flange Kit (P/N 5061-9678)

910 Set of Operating/Programming and Service Manuals

915 Service Manual (P/N 08115-90001)

916 Additional Operating and Programming Manual (P/N 08115-90011)

W30 Two additional years of HP service

#### Accessories

P/N 1494-0059 Rack Slide Kit (requires #H01)

Fast-Ship product—see page 734.