

# PULSE GENERATORS

Configurable Pulse/Data Stimuli

HP 8080A Series

477

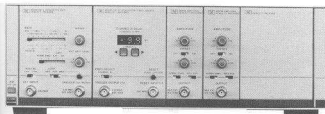


## Example: HP 8080A SO4

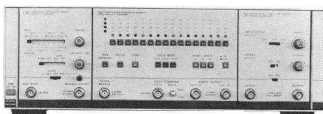
- 1 GHz, 300 ps transitions
- Interchannel delay

## Example: HP 8080A DO1

- 300 MHz, 800 ps transitions
- Manually programmable data



HP 8091A Rate Generator    HP 8092A Delay Generator    CHA CHB HP 8093A Output Amplifiers    HP 15400A Blank Panel



HP 8081A Rate Generator    HP 8084A Word Generator    HP 8083A Output Amplifier

Research and development in advanced technologies such as subnanosecond ICs, fiber optics and nucleonics, require fast pulses for thorough characterization. The HP 8080A can, for example, generate simultaneous 1 GHz clock and simulated NRZ data with up to 64 bits and fast 300 ps edges for state-of-the-art communication devices. Cost-effectivity is promoted because the HP 8080A's modular structure allows performance and capability to be tailored to the requirement.

Two examples are shown here. Full details of these and all other factory-systemized configurations are in the data sheet. Individual modules are also available for special applications or for extending an existing configuration. Ask for the systemizing and adjustment guidelines.

## Leading Characteristics (50-ohm load)

### HP 8080A SO4

#### Timing

Repetition rate: 100 Hz – 1 GHz  
Interchannel delay:  $\pm 9.9$  ns in 0.1 ns steps.  
Channel B divider: 0.5 f selectable for simulating NRZ data  
Width: Square wave  
Modes: Int, Ext Width, Gate, Manual  
Independent 50-ohm Outputs  
Amplitude: 0.6 V to 1.2 Vpp.  
Offset:  $\pm 1.2$  V.  
Transitions times (10% to 90%): <300 ps  
Polarity: selectable  
Format: Normal/Complement selectable

### HP 8080A DO1

#### Timing

Repetition rate: 10 Hz–300 MHz  
Width: square wave (RZ) or NRZ.  
Modes: Int, Ext/Manual Width.  
Data cycle modes: Ext/Man Single and Gated Cycle, Auto Cycle.  
Data: Serial, 16/32/64 bit selectable  
Simultaneous Normal and Complement 50-ohm Outputs  
Amplitude: 0.2 V to 2 V.  
Offset:  $\pm 1$  V  
Transitions times (10% to 90%): <800 ps

## General

Operating temperatures: 0°C to 55°C.

Power: 115/230 V rms; +10%, -22%; 48 to 66 Hz, 200 VA max.

Weight: (typical, HP 8080A Mainframe plus full complement of modules) 9.4 kg (16.6 lbs) net; 19.7 kg (43.3 lbs) shipping.

Size: (HP 8080A Mainframe): 133 H x 426 W x 422 mm D (5.24" x 16.77" x 16.61").

## Ordering Information

HP 8080A Mainframe

Opt 907: Front handle kit

Opt 908: Rack flange kit

Opt 909: Opt 907, 908 combined

Opt S01: (HP 8081/83A, 2 x HP 15400A)

Opt S02: (HP 8081/93A, 2 x HP 15400A, 15401A)

Opt S03: (HP 8091/93A, 2 x HP 15400A, 15401A)

Opt S04: (HP 8091/92A, 2 x HP 8093A, 15400A)

Opt D01: (HP 8081/83/84A)

Opt D02: (HP 8081/84/93A, 15401A)

Opt D03: (HP 8081/84A, 2 x HP 8093A)

HP 8081A 300 MHz Rate Generator module

HP 8083A 300 MHz Output Amplified module

HP 8084A 300 MHz Word Generator module

HP 8091A 1 GHz Rate Generator module

HP 8092A 1 GHz Delay Generator module

HP 8093A 1 GHz Output Amplifier module

Opt H01: Special Option for variable-width operation with HP 8092A

Additional manuals: Opt 910, per module

## Accessories Available

HP 15400A Blank Panel, 1/4 mainframe width

HP 15401A Blank Panel, 1/4 mainframe width

HP 15402A BNC Feedthru panel, 1/4 width

## Pulse Generator Accessories



HP 15104A/15115A

HP 15116A

HP 15104A Pulse Adder/Splitter dc to 2 GHz

HP 15116A Pulse Inverter 2 MHz to 2 GHz

HP 15115A Pulse Splitter/Inverter 1 MHz to 2 GHz