

KEYSIGHT TECHNOLOGIES (AGILENT HP)

54110D

The HP Keysight 54110D is a classic high-performance 1 GHz digitizing oscilloscope designed for capturing and analyzing high-speed analog and digital signals. Featuring up to 4 input channels, a 7-bit vertical resolution, and a color CRT display, this instrument is optimized for high-frequency applications requiring precise timing and waveform analysis.

SPECIFICATIONS

General

Interfaces	HP-IB (IEEE-488)
Display	9-inch color CRT

Physical

Power Supply	115/230 Vac (+15% / -25%), 48-66 Hz
Operating Temperature	0 °C to +55 °C °C
Dimensions (W×H×D)	426 mm × 234 mm × 641 mm mm
Weight	26.76 kg kg

Vertical System

Analog Bandwidth	DC to 1.0 GHz
Calculated Rise Time	350 ps
Number of Input Channels	2 channels
Vertical Resolution	7 bits
Minimum Vertical Sensitivity	1 mV/div
Maximum Vertical Sensitivity	1 V/div

Horizontal System

Maximum Real-Time Sampling Rate	40 MSa/s
Sweep Speed Range	100 ps/div to 1 s/div

Acquisition System

Storage Capability	Digital storage
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Physical Characteristics

Height	234 mm (9.22 in)
Width	426 mm (16.75 in)
Depth	641 mm (25.25 in)
Weight (Imperial)	59 lb

Signal Acquisition

Input Impedance	50 Ω ($\pm$ 1%)
Maximum Input Voltage	5 V rms
Memory Depth	1024 points per channel

Triggering

Trigger Bandwidth	1 GHz
Internal Trigger Sensitivity	0.1 division or 2.0 mV (DC to 100 MHz), 0.2 division or 4.0 mV (100 MHz to 1 GHz)
Trigger Modes	Edge, Pattern, State, Delay-by-Time, Delay-by-Events, Time-Qualified, Event-Qualified
External Trigger Inputs	2 inputs (Trigger 1, Trigger 2)

Timebase

Time Interval Resolution	10 ps
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Environmental

Operating Humidity	Up to 95% relative humidity at +40 °C
Operating Altitude	Up to 4,600 m (15,000 ft)
Non-Operating Temperature	-40 °C to +75 °C

Acquisition

Acquisition Modes	Normal (real-time and repetitive), Average, Envelope
Internal Waveform Storage	4 non-volatile waveform registers, 4 pixel memories

Measurements & Analysis

Automated Measurements	Frequency, Period, Pulse Width, Rise Time, Fall Time, Duty Cycle, Vp-p, Vmax, Vmin, Vtop, Vbase, Vavg, Vrms, Overshoot, Preshoot
Waveform Math	A + B, A - B, Invert

Interfaces & Connectivity

Programmability	HP-IB (IEEE-488) fully programmable
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TECHNOLOGY

Digitizing Oscilloscope

APPLICATIONS

High-frequency signal analysis, RF testing, and digital system characterization

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.