

KEYSIGHT TECHNOLOGIES (AGILENT HP)

54645D

The Keysight (Agilent/HP) 54645D is a 100-MHz, 2-channel analog, 16-channel digital mixed-signal oscilloscope (MSO). Utilizing Keysight's MegaZoom deep-memory technology, it provides 1 MB of memory per analog channel and 2 MB per digital channel, offering both a highly responsive display and deep memory capture for analyzing complex analog and digital system interactions.

SPECIFICATIONS

General

Interfaces	Optional HP-IB (GPIB), RS-232, or Parallel interfaces available via 54650-series expansion modules
Display	7-inch monochrome raster CRT

Vertical System - Analog Channels

Analog Channels	2
Analog Bandwidth	100 MHz
Calculated Rise Time	3.5 ns
Input Coupling	AC, DC, GND
Vertical Resolution	8 bits
Maximum Input Voltage	400 V (DC + Peak AC) at 1 M Ω
Bandwidth Limit Filter	20 MHz

Vertical System - Digital Channels

Digital Channels	16
Digital Probe Input Impedance	100 k Ω $\pm$ 2% 8 pF
Threshold Selections	TTL, CMOS, ECL, User-defined
Minimum Input Voltage Swing	500 mV peak-to-peak
Maximum Input Voltage (Digital)	$\pm$ 40 V

Horizontal System

Timebase Accuracy	$\pm$ 0.01% ($\pm$ 100 ppm)
Timebase Modes	Main, Delayed, Roll, XY
Delayed Sweep	Allows zooming in on any portion of the main sweep with horizontal magnification

Acquisition System

Maximum Real-Time Sample Rate - Analog	200 MSa/s
Maximum Real-Time Sample Rate - Digital	400 MSa/s (using 8 channels), 200 MSa/s (using 16 channels)
Maximum Memory Depth - Analog	1 MB per channel
Acquisition Modes	Normal, Peak Detect, Average
Peak Detection Glitch Width	5 ns minimum

Trigger System

Trigger Sources	Channel 1, Channel 2, Line, Digital Channels (D0-D15)
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Triggering

Pattern Triggering	Trigger on any pattern of High, Low, or Don't Care on any combination of analog and digital channels
State Triggering	Trigger on a pattern clocked by a rising or falling edge on any analog or digital channel

TECHNOLOGY

Mixed Signal Oscilloscope (MSO)

APPLICATIONS

Mixed-signal design, digital debugging, embedded system testing, general-purpose electronic troubleshooting

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