KEYSIGHT TECHNOLOGIES (AGILENT HP)

MSO6054A

The Keysight Technologies (formerly Agilent HP) MSO6054A is a 500 MHz, 4 analog channel and 16 digital channel Mixed Signal Oscilloscope. Built with MegaZoom III technology, it offers an uncompromised waveform update rate of up to 100,000 waveforms per second, a standard 8 Mpts deep memory, and a 6.3-inch high-definition XGA display with 256 intensity levels. It is designed to debug demanding analog, digital, and serial bus designs in one portable instrument.

SPECIFICATIONS

General

Display	6.3-inch (160 mm) diagonal color XGA (1024 x 768) TFT LCD with 256 intensity levels

Vertical System - Analog Channels

Analog Bandwidth	500 MHz
Number of Analog Channels	4
Calculated Rise Time	~700 ps (0.35 / Bandwidth)
Vertical Resolution	8 bits (up to 12 bits in High Resolution mode)

Vertical System - Digital Channels

Number of Digital Channels	16

Acquisition System

Maximum Real-Time Sample Rate (Analog)	4 GSa/s (interleaved on 2 channels), 2 GSa/s (on 4 channels)
Maximum Real-Time Sample Rate (Digital)	2 GSa/s (interleaved on 8 channels), 1 GSa/s (on 16 channels)
Maximum Memory Depth (Analog)	8 Mpts (interleaved on 2 channels), 4 Mpts (on 4 channels)
High Resolution Mode	Real-time boxcar filtering yields up to 12 bits of resolution
Waveform Update Rate	100,000 waveforms/sec

Trigger System

Trigger Modes	Auto, Normal, Single
Trigger Coupling	AC, DC, LF Reject, HF Reject, Noise Reject
Edge Triggering	Rising, falling, or alternating edges on any source
Trigger Level Range (Internal)	±6 divisions from center of screen

Waveform Analysis and Measurements

Hardware Cursors	X1, X2, Y1, Y2 with readout of delta and 1/delta
Automatic Voltage Measurements	Peak-to-Peak, Max, Min, Amplitude, Top, Base, Overshoot, Preshoot, Average, RMS
Automatic Time Measurements	Frequency, Period, +Width, -Width, Duty Cycle, Rise Time, Fall Time, Delay, Phase
FFT Window Types	Hanning, Flat Top, Rectangular, Blackman-Harris

Connectivity and I/O Interfaces

USB Device Port	1 port (rear panel), Type B for remote control
LXI Compliance Class	Class C compliant
External Video Output	XGA 15-pin D-sub (rear panel)

Physical, Power, and Environmental

Operating Altitude	Up to 4,600 m (15,000 ft)

Accessories Included

Standard Analog Probe	10073C (10:1 passive probe, 500 MHz, 4 included)
Standard Digital Probe Kit	54620-68701 (16-channel digital cable kit, 1 included)

Power Requirements

AC Input Voltage Range	100 - 120 V AC at 50/60/400 Hz, or 100 - 240 V AC at 50/60 Hz
Maximum Power Consumption	120 W

Environmental & Mechanical

Non-Operating Vibration	Agilent Class B1, random 5 - 500 Hz, 10 min per axis, 2.41 g (rms)
Operating Shock	Agilent Class B1, half-sine pulse, 30 g, 11 ms duration

System Features

Calibration Interval	1 year
Real-Time Clock	Built-in, battery-backed
Standard GUI Languages	English, French, German, Italian, Spanish, Japanese, Korean, Portuguese, Russian, Simplified Chinese, Traditional Chinese

Measurement Statistics

Available Statistical Metrics	Mean, standard deviation, minimum, maximum, and count
Simultaneous Measurements	Up to 4 displayed simultaneously

Hardware Connectivity

AutoProbe Interface	Supported on all analog channels

Power Specifications

Line Frequency Range	50/60 Hz (100 to 240 VAC) or 400 Hz (100 to 120 VAC)

Environmental & Safety

Pollution Degree	Pollution Degree 2
Installation Category	CAT II

TECHNOLOGY

Mixed Signal Oscilloscope (MSO)

APPLICATIONS

Mixed-signal design and debug, serial bus triggering and analysis, automotive and aerospace system testing, power analysis, FPGA debugging.