

KEYSIGHT TECHNOLOGIES (AGILENT HP)

DSO6052A

The Agilent DSO6052A (Keysight Technologies) is a high-performance 2-channel, 500 MHz digital storage oscilloscope belonging to the InfiniiVision 6000 Series. Powered by MegaZoom III technology, it offers up to 8 Mpts of deep memory, an ultra-fast update rate of up to 100,000 waveforms/sec, and a high-definition color XGA display with 256 intensity levels. It supports extensive serial bus decoding and has a flexible upgrade path to a Mixed Signal Oscilloscope (MSO) at any time.

SPECIFICATIONS

General

Interfaces	Standard USB (2x Host, 1x Device), LAN, GPIB, and XGA video output
Display	6.3-inch color XGA LCD, 1024 x 768 resolution, 256 intensity levels
GUI Languages	English, French, German, Italian, Japanese, Korean, Portuguese, Russian, Simplified Chinese, Spanish, Traditional Chinese

Physical

Power Supply	100-240 VAC, 50/60 Hz; 100-120 VAC, 400 Hz
Operating Temperature	0 °C to +55 °C °C

Key Performance Specifications

Bandwidth	500 MHz
Calculated Rise Time	700 ps
Input Channels	2 analog channels
Maximum Real-time Sample Rate	4 GSa/s (half-channel), 2 GSa/s (each channel)
Waveform Update Rate	Up to 100,000 waveforms/s

Vertical System - Analog Channels

Input Sensitivity Range	1 mV/div to 5 V/div (1 M Ω), 1 mV/div to 1 V/div (50 Ω)
Vertical Resolution	8 bits
DC Vertical Gain Accuracy	$\pm 2.0\%$ of full scale
Maximum Input Voltage	CAT I 300 Vrms, 400 Vpk (1 M Ω); 5 Vrms (50 Ω)

Horizontal System

Timebase Range	500 ps/div to 50 s/div
Timebase Accuracy	± 15 ppm

Acquisition System

Peak Detect Performance	250 ps
Averaging Factor Range	2 to 65,536 selectable in powers of 2
High Resolution Mode Performance	Up to 12 bits of resolution (at $\geq 10 \mu\text{s}/\text{div}$)

Trigger System

Trigger Sources	Channel 1, Channel 2, Line, External
Trigger Modes	Auto, Normal, Single
Trigger Coupling	AC, DC, LF Reject, HF Reject, Noise Reject
Edge Triggering	Rising, falling, alternating, or either edge on any source

Display & User Interface

Graticule Options	8 x 10 divisions
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Ordering Information & Options

MSO Upgradeability	Supported (allows upgrade to MSO at any time)
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Probe Interface

Probe Interface Type	AutoProbe interface
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Connectivity & Control

LXI Compliance	LXI Class C
Built-in Web Server	Yes, provides remote instrument control via web browser

Environmental & Mechanical

Vibration Resistance	MIL-PRF-28800F, Class 3 random
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Display

Display Intensity Levels	256 levels
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Vertical System

DC Vertical Offset Accuracy	$\pm 0.1 \text{ div} \pm 2 \text{ mV} \pm 0.5\% \text{ of offset value}$
Vertical Dynamic Range	± 8 divisions from screen center

X-Y Mode

X-Y Mode Bandwidth	500 MHz
X-Y Mode Phase Error	$< 0.5^\circ$ at 1 MHz

Auxiliary Ports

Probe Compensator Output	Frequency $\sim 1.2 \text{ kHz}$, Amplitude $\sim 2.5 \text{ Vpp}$
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Interfaces

USB Host Interface Speed	USB 2.0 High-speed
USB Device Interface Speed	USB 2.0 High-speed
LAN Speed	10/100Base-T

Power

AC Line Frequency	50/60 Hz (100–240 V), 400 Hz (100–120 V)
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Environmental

Storage Altitude	Up to 15,244 m (50,000 ft)
Storage Humidity	Up to 90% RH at 65 °C (non-condensing)

TECHNOLOGY

Digital Storage Oscilloscope

APPLICATIONS

Embedded design, automotive electronics, and high-speed digital debug

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