

KEYSIGHT TECHNOLOGIES (AGILENT HP)

54832B

The Keysight (Agilent) Infiniium 54832B is a 4-channel digital storage oscilloscope with a bandwidth of 1 GHz and a maximum real-time sample rate of up to 4 GSa/s. It features a Windows-based graphical user interface and standard 4 Mpts memory depth, upgradeable up to 16 Mpts. Designed for modern signal integrity measurements, it combines high-performance acquisition with simple, analog-like controls.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488), LAN (10/100Base-T), USB, Parallel (LPT), Serial (RS-232), PS/2 (keyboard and mouse), VGA out
Display	8.4-inch color flat-panel TFT-LCD, 640 x 480 resolution

Physical

Power Supply	100 - 240 VAC ($\pm 10\%$), 47 - 440 Hz, 395 W max
Operating Temperature	0 to +50 °C °C
Dimensions (W×H×D)	437 mm × 216 mm × 440 mm mm

Vertical System

Analog Bandwidth	1 GHz
Input Channels	4
Calculated Rise Time	350 ps (10% to 90%)
Vertical Resolution	8 bits (up to 12 bits with averaging)
Input Impedance	50 Ω or 1 M Ω (selectable)
Input Coupling	AC, DC
Maximum Input Voltage (1 M Ω)	150 Vrms
Maximum Input Voltage (50 Ω)	5 Vrms
Vertical Sensitivity Range (1 M Ω)	1 mV/div to 10 V/div
Vertical Sensitivity Range (50 Ω)	1 mV/div to 1 V/div
Hardware Bandwidth Limit	20 MHz
DC Gain Accuracy	$\pm 1.25\%$ of full scale
Channel-to-Channel Isolation	≥ 40 dB (DC to 1 GHz)
Vertical Offset Range (1 M Ω)	± 1.2 V (1 mV to 50 mV/div), ± 12 V (50.5 mV to 500 mV/div), ± 120 V (505 mV to 10 V/div)
Vertical Offset Range (50 Ω)	± 1.2 V (1 mV to 50 mV/div), ± 12 V (50.5 mV to 1 V/div)
Probe Connection System	Agilent AutoProbe interface
Probe Attenuation Factors	1:1 to 10000:1 (user adjustable or automatically sensed)

Horizontal System & Acquisition

Maximum Real-time Sample Rate (Single Channel)	4 GSa/s
Maximum Real-time Sample Rate (Multi-channel)	2 GSa/s (on 3 or 4 channels)
Standard Memory Depth	4 Mpts (2 channels), 2 Mpts (4 channels)
Maximum Expanded Memory Depth	16 Mpts (2 channels), 8 Mpts (4 channels) with Option 010
Main Timebase Range	50 ps/div to 20 s/div
Channel-to-Channel Deskew Range	±100 ns
Acquisition Modes	Real-time, Equivalent-time, Peak Detect, Average, High Resolution

Trigger System

Trigger Sources	Channel 1, Channel 2, Channel 3, Channel 4, Auxiliary, Line
Trigger Coupling	DC, AC, LF Reject, HF Reject, Noise Reject
Trigger Holdoff Range	100 ns to 10 s
Trigger Sensitivity (Internal)	0.5 div (DC to 1 GHz)
Trigger Level Range (Internal)	±8 divisions from screen center
Auxiliary Trigger Maximum Input Voltage	±150 V
Auxiliary Trigger Sensitivity	0.15 V (DC to 500 MHz), 0.3 V (500 MHz to 1 GHz)

Waveform Measurements & Analysis

Automatic Voltage Measurements	Peak-to-peak, Maximum, Minimum, Amplitude, Top, Base, Overshoot, Preshoot, Average, RMS, Cycle RMS
Automatic Time Measurements	Period, Frequency, Positive Width, Negative Width, Duty Cycle, Rise Time, Fall Time, Delay, Phase
Waveform Math Operators	Addition, Subtraction, Multiplication, Division, FFT, Integration, Differentiation
FFT Window Functions	Hanning, Flattop, Rectangular, Blackman-Harris

Display & User Interface

Built-in Operating System	Windows
Pointer / Mouse Interface	PS/2 mouse or USB pointing device supported

Environmental & Safety Compliance

Operating Humidity Range	Up to 95% RH (non-condensing) at +40 °C
Operating Altitude	Up to 4,600 m (15,000 ft)
Non-operating Temperature Range	-40 °C to +70 °C

Horizontal System

Timebase Resolution	1 ps
Timebase Crystal Aging Rate	±2 ppm/year
Pre-trigger Delay Range	Up to 100 seconds
Post-trigger Delay Range	Up to 1000 seconds

Power & Environmental

Maximum Power Consumption	390 W
AC Input Voltage Range	100 - 240 VAC
AC Input Frequency Range	47 - 440 Hz
Vibration (Operating)	0.3 g (rms), 5 to 500 Hz, 10 minutes per axis
Shock (Operating)	15 g peak, half-sine, 11 ms duration

Triggers

Glitch Trigger Min Width	1.5 ns
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PC System

Internal Hard Drive	≥ 20 GB
External Video Output	15-pin VGA
Audio Output	Internal speaker, line out, microphone in

Standards and Compliance

Safety Compliance	CSA C22.2 No. 1010.1, EN 61010-1, IEC 61010-1
EMC Compliance	IEC 61326-1, EN 61326, CISPR 11 Group 1 Class A

TECHNOLOGY

Digital Storage Oscilloscope (DSO)

APPLICATIONS

High-speed digital design, signal integrity troubleshooting, and general-purpose electronic test

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