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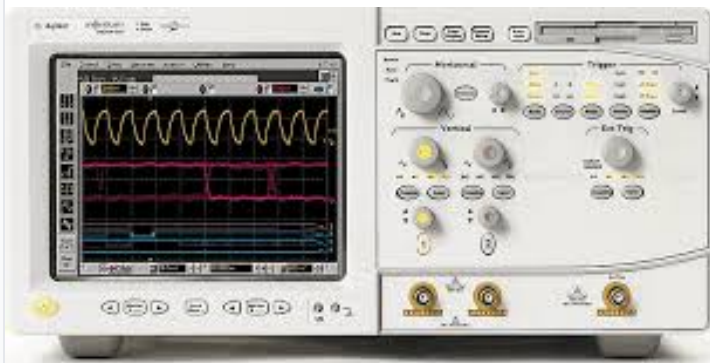
Data Sheet

August 31, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 54833A

Remote Interfaces: LAN GPIB USB VGA Centronics Segmented Memory: available on supported serial numbers and firmware Display: color Infiniium CRT/LCD class per configuration From Agilent Infiniium 54830 Series Oscilloscopes data sheet model column for 54833A. Memory option codes 040/080/160/320/640 set deeper acquisition memory. Agilent Keysight 54833A Infiniium Oscilloscope The Agilent 54833A isaTwo-channel 1 GHz Infiniium MegaZoom scope with 1 GHz analog bandwidth at 50 Ohm and MegaZoom deep memory. OEM Infiniium 54830 Series datasheets list up to 4 GSa/s interleaved sampling and optional memory to 128 Mpts max. Digital and mixed-signal debug at 1 GHz, serial protocol analysis options, and long-record capture with MegaZoom memory. Analog Bandwidth 1 Mohm With 1165A Probe Class: 500 MHz



MODEL

**Agilent / Keysight
54833A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

54833A

LISTING

<https://aumictechlabs.com/products/54833a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 54833A is a 1 GHz bandwidth, 2-channel oscilloscope engineered for complex waveform capture and analysis with exceptional memory depth and acquisition speed. This Infiniium Series instrument delivers 4 GSa/s sampling and up to 128 Mpts of interleaved memory, enabling detailed signal characterization across demanding test scenarios. The platform runs Windows XP Pro, allowing direct execution of Windows applications within the instrument for

enhanced post-processing and custom analysis workflows.

Technical Specifications

Bandwidth: 1 GHz

Channels: 2 analog

Sample Rate: Up to 4 GSa/s

Memory Depth: 1 Mpts standard; up to 128 Mpts interleaved with automatic optimization

Vertical Resolution: 8 bits (0.4% FS) or 12 bits (0.024% FS)

DC Gain Accuracy: 0.08% FS per °C drift from calibration temperature

Rise Time: Calculated as $0.35/\text{bandwidth}$

System Bandwidth: Typical 600 MHz with 1 M Ω input and standard probe

Display: 8.4-inch color TFT-LCD, 640 × 480 pixels

Waveform Update Rate: >3,100 waveforms/second (standard); >8,800 waveforms/second (maximum); >50 waveforms/second (deep memory)

Key Features

Mega Zoom technology maintains responsive control and display update rates even with extensive memory depth

Advanced triggering: setup/hold, pulse width (≥ 500 ps capture), transition (≥ 800 ps), and video (NTSC, PAL, 875-line) modes

Trigger accuracy for glitch/pulse: $\pm(20\% \text{ setting} + 500 \text{ ps})$ for 1.5–20 ns; $\pm(3\% \text{ setting} + 2 \text{ ns})$ for 20 ns–160 ms

Segmented memory acquisition captures bursting signals at full sample rate without overhead during signal gaps

Persistence modes: intensity-graded and color-graded for waveform distribution visualization

Simultaneous grid display options (1, 2, or 4 grids)

Measurement rates >190 Vp-p/second (standard) to >200 Vp-p/second (maximum)

Typical Applications

Complex signal analysis in R&D, manufacturing, and field service environments requiring deep capture memory and precise trigger control for transient and repetitive waveform characterization.

Compatibility & Integration

Windows XP Pro platform enables integration with custom applications and third-party software tools for specialized measurement workflows and automated test sequences.

54833A Characteristics / Specifications

PARAMETER	VALUE
Model	54833A
Analog Channels	2
Analog Bandwidth 50 Ohm	1 GHz
Calculated Rise Time 50 Ohm	350 ps
Analog Bandwidth 1 Mohm With 1165A Probe Class	500 MHz
Sample Rate	4 GSa/s one-channel mode; 2 GSa/s two-channel mode
Standard Memory	500 kpts/ch (1 Mpts max) standard
Maximum Memory With Options Class	64 Mpts/ch (128 Mpts max) interleaved class
Equivalent Time Sample Rate Max	250 GSa/s
Vertical Sensitivity 1 Mohm	1 mV/div to 5 V/div
Vertical Sensitivity 50 Ohm	1 mV/div to 1 V/div
Vertical Resolution	8 bits greater than or equal to 12 bits with averaging
Input Impedance	1 Mohm plus or minus 1 percent (13 pF typical) or 50 Ohm plus or minus 1.5 percent
Hardware Bandwidth Limit	20 MHz
Input Coupling 1 Mohm	AC DC
Input Coupling 50 Ohm	DC
Series Family	Agilent Infiniium 54830 Series
Rise Time 1 Mohm Class	700 ps
Maximum Input 1 Mohm Class	plus or minus 100 V (DC+AC) CATIclass family
Maximum Input 50 Ohm Class	5 Vrms CATIclass family
DC Gain Accuracy Class	plus or minus 1 percent of full scale class family
Timebase Accuracy Class	15 ppm class family Infiniium 54830
Processor Class	Pentium III 1 GHz
CPU Memory	512 MB

PARAMETER	VALUE
Hard Drive Class	greater than or equal to 20 GB
Operating System	Windows XP Pro
Remote Interfaces	LAN GPIB USB VGA Centronics
Segmented Memory	available on supported serial numbers and firmware
Display	color Infiniium CRT/LCD class per configuration
Bandwidth	50 Ohm: 1 GHz
Rise Time	50 Ohm: 350 ps

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Notes

From Agilent Infiniium 54830 Series Oscilloscopes data sheet model column for 54833A. Memory option codes 040/080/160/320/640 set deeper acquisition memory.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.