


Aumictech

Test & measurement • bought, sold, repaired, calibrated

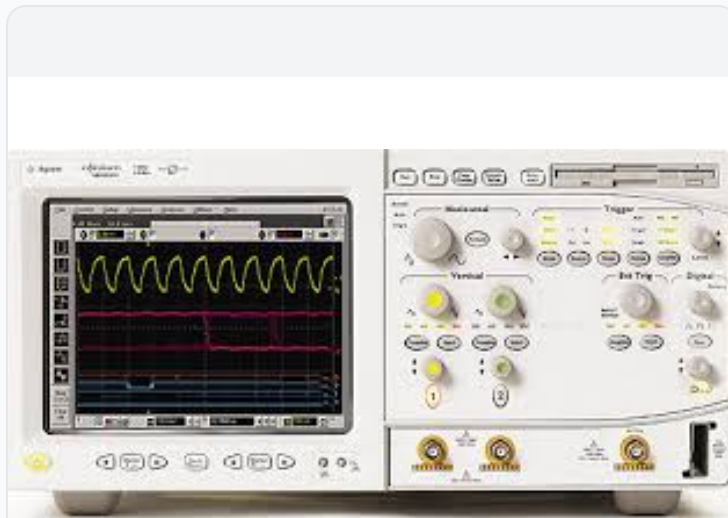
Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 54833D

Timebase Accuracy Class: 15 ppm class family Infiniium 54830 Hard Drive Class: greater than or equal to 20 GB Remote Interfaces: LAN GPIB USB VGA Centronics From Agilent Infiniium 54830 Series Oscilloscopes data sheet 5988-3788EN model column for 54833D. Memory option codes 040/080/160/320/640 set deeper acquisition memory. Hard Drive Class: greater than or equal to 20 GB Remote Interfaces: LAN GPIB USB VGA Centronics From Agilent Infiniium 54830 Series Oscilloscopes data sheet 5988-3788EN model column for 54833D. Memory option codes 040/080/160/320/640 set deeper acquisition memory.



MODEL

**Agilent / Keysight
54833D**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

54833D

LISTING

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

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 54833D is a 1 GHz mixed-signal oscilloscope integrating two analog channels with sixteen digital logic timing channels. This instrument combines oscilloscope and logic analyzer functionality in a single platform, enabling simultaneous analog and digital signal capture with triggering across all 18 channels. The 54833D acquires real-time data at 4 GSa/s (2 channels interleaved) or 2 GSa/s per channel, with equivalent-time sampling reaching 250 GSa/s for higher-resolution measurements. MegaZoom deep memory technology supports up to 128 Mpts total, delivering fast waveform updates even during deep memory acquisitions. Technical Specifications Bandwidth: 1 GHz Analog Channels: 2 Digital Channels: 16 Real-Time Sample Rate:

4 GSa/s (2 channels interleaved), 2 GSa/s per channel Equivalent-Time Sample Rate: 250 GSa/s maximum Memory Depth: Standard 4 Mpts; optional upgrade to 128 Mpts Time Base Range: 200 ps/div to 20 s/div Timebase Accuracy: 15 ppm ($\pm 0.0015\%$) Delta-Time Measurement Accuracy: 400 fs rms (≥ 256 averages) Digital Input Impedance: $100\text{ k}\Omega \pm 2\%$ ($\sim 8\text{ pF}$) Digital Threshold Options: TTL, 5.0V CMOS, 3.3V CMOS, 2.5V CMOS, ECL, PECL, user-defined ($\pm 8.00\text{ V}$ in 10 mV increments) Digital Maximum Input Voltage: $\pm 40\text{ V}$ peak CAT I Digital Input Dynamic Range: $\pm 10\text{ V}$ about threshold Channel-to-Channel Skew: 2 ns typical, 3 ns maximum Glitch Detection: $\geq 2.5\text{ ns}$ Horizontal Position Range: 0 to $\pm 200\text{ s}$ Channel-to-Channel Deskew Range: $-100\text{ }\mu\text{s}$ to $100\text{ }\mu\text{s}$ Key Features Mixed-signal triggering across all 16 digital and 2 analog channels Setup/hold violation detection with configurable trigger options Transition triggers for edges not crossing specified voltage levels within defined time windows Up to 4 simultaneous automatic measurements with statistics (mean, standard deviation, minimum, maximum) Eye diagram analysis with measurements for eye height, eye width, jitter, crossing %, Q factor, and duty cycle distortion Mask testing for pass/fail validation against user-defined or Agilent-supplied templates Histogram modes (vertical/horizontal) for timing, jitter, noise, and amplitude analysis Drag-and-drop measurement toolbar and QuickMeas+ front panel access Typical Applications High-speed digital signal integrity analysis Mixed-domain debugging across analog and digital domains Protocol and bus timing verification Jitter and eye diagram characterization Setup/hold timing violation detection Compatibility & Integration The 54833D supports multiple digital threshold standards and user-defined thresholds, making it compatible with a wide range of logic families and custom signaling protocols.

54833D Characteristics / Specifications

PARAMETER	VALUE
Model	54833D
Analog Channels	2
Digital Channels	16
Analog Bandwidth 50 Ohm	1 GHz
Calculated Rise Time 50 Ohm	350 ps
Analog Bandwidth 1 Mohm With 1165A Probe	500 MHz
Sample Rate	4 GSa/s one-channel mode; 2 GSa/s two-channel mode
Standard Memory	2 Mpts/ch (4 Mpts max) standard
Maximum Memory With Options	64 Mpts/ch (128 Mpts max) interleaved
Equivalent Time Sample Rate Max	250 GSa/s
Digital Max Real Time Sample Rate	1 GSa/s (54830D/31D/32D/33D)
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
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

PARAMETER	VALUE
Cpu Memory	512 MB
Hard Drive Class	greater than or equal to 20 GB
Operating System	Windows XP Pro
Remote Interfaces	LAN GPIB USB VGA Centronics
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	
Specifications	
PARAMETER	VALUE
Model	54833D
Analog Channels	2
Digital Channels	16
Analog Bandwidth 50 Ohm	1 GHz
Calculated Rise Time 50 Ohm	350 ps
Analog Bandwidth 1 Mohm With 1165A Probe	500 MHz
Sample Rate	4 GSa/s one-channel mode; 2 GSa/s two-channel mode
Standard Memory	2 Mpts/ch (4 Mpts max) standard
Maximum Memory With Options	64 Mpts/ch (128 Mpts max) interleaved
Equivalent Time Sample Rate Max	250 GSa/s
Digital Max Real Time Sample Rate	1 GSa/s (54830D/31D/32D/33D)
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
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 Infinium 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

Notes

From Agilent Infiniium 54830 Series Oscilloscopes data sheet 5988-3788EN model column for 54833D. 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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 14, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.