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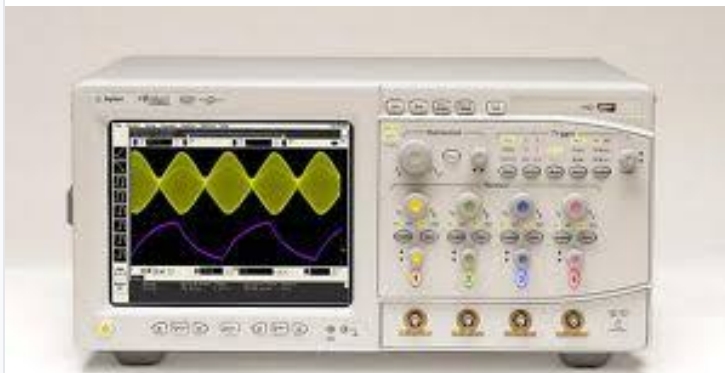
**Data Sheet**

August 31, 2026

AGILENT / KEYSIGHT

## Agilent/Keysight 54815A

The Agilent 54815A is the 4-channel 500 MHz Infiniium model with 1 GSa/s real-time sampling on each channel and 32K memory. It shares the Infiniium Windows UI, advanced triggers, math/FFT/histograms, and connectivity of the 54810A while providing four simultaneous acquisition channels. Four-channel embedded and analog debug at 500 MHz, timing relationships across multiple signals, and Infiniium mask/eye analysis. Four simultaneous channels at 500 MHz / 1 GSa/s Same Infiniium measurement and mask toolset as 54810A Interfaces: LAN, GPIB, RS-232, Centronics standard Glitch Capture Width: as narrow as 500 ps Runt Trigger: Option 015 on this model class From Agilent Infiniium 54800-series data sheet 54815A column. Runt trigger is Option 015 on 54810/15/20/25A class models.



MODEL

**Agilent / Keysight  
54815A**

CALIBRATION

**Available on  
request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**54815A**

LISTING

<https://aumictechlabs.com/products/54815a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

### This unit

The Agilent/Keysight 54815A Infiniium Oscilloscope is a 4-channel, 500 MHz bandwidth instrument delivering 1 GSa/s sample rate across all channels simultaneously. Built for design validation and signal troubleshooting, it combines a Windows-based graphical interface with an intuitive analog-style front panel featuring dedicated scale and position controls per channel. The 54815A captures transient events with 1 ns peak detect capability and updates waveforms at 50,000 wfms/s, enabling rapid anomaly identification through color-grade persistence visualization. Technical Specifications Bandwidth: 500 MHz Channels: 4 Sample Rate: 1 GSa/s

(simultaneous, all channels) Memory Depth: 32k points Vertical Resolution: 8 bits Input Impedance:  $1\text{ M}\Omega \parallel 14\text{ pF}$  Maximum Input Voltage: 300 Vrms CAT II Waveform Update Rate: 50,000 wfms/s Peak Detect: 1 ns Key Features Advanced Triggering: Captures glitch, pattern, state, delay by time/events, setup/hold time, transition, and video events. Pulse width triggering resolves pulses as narrow as 500 ps; edge triggering captures 800 ps transitions. Video triggering supports NTSC (525 lines/60 Hz), PAL (625 lines/50 Hz), and 875 lines/60 Hz with field and line-level selectivity. Time-qualified pattern triggering windows from 20 ns to 160 ms. Analysis & Measurement: FFT and histogram functions characterize frequency content and signal variation. Eye diagrams simplify communications design validation. Auto-mask and mask test functions establish tolerance envelopes for automated pass/fail comparison. Communications mask test option validates conformance to ANSI T1.102, IEEE 802.3, and ITU-T G.703 standards. Measurement statistics and delayed sweep available. Interface & Storage: Drag-and-drop measurement positioning. Built-in guidance system. 5 GB hard drive and 120 MB LS-120 SuperDisk floppy storage. Compatibility & Integration Connectivity includes Centronics, RS-232, GPIB, 10/100 Mbps LAN, and USB 2.0 for instrument control, data transfer, and system integration.

## 54815A Characteristics / Specifications

| PARAMETER                             | VALUE                                                                                                 |
|---------------------------------------|-------------------------------------------------------------------------------------------------------|
| Channels                              | 4 simultaneous acquisition                                                                            |
| Analog Bandwidth                      | 500 MHz                                                                                               |
| Real Time Sample Rate                 | 1 GSa/s on each channel                                                                               |
| Equivalent Time Effective Sample Rate | 100 GSa/s                                                                                             |
| Memory Depth                          | 32768 points per channel                                                                              |
| Real Time Bandwidth                   | 250 MHz                                                                                               |
| Rise Time Equivalent Time             | 700 ps                                                                                                |
| Rise Time Real Time                   | 1.4 ns                                                                                                |
| Vertical Sensitivity                  | 1 mV/div to 5 V/div                                                                                   |
| Input Impedance                       | 1 Mohm $\pm 1\%$ or 50 ohm $\pm 1\%$                                                                  |
| Maximum Input 1 Mohm                  | $\pm 250$ V (dc+ac) CATIMaximum Input 50 Ohm: 5 Vrms CATIMain Time Base Range: 500 ps/div to 20 s/div |
| Timebase Accuracy                     | 50 ppm                                                                                                |
| DC Gain Accuracy                      | $\pm 1.25\%$ of full scale                                                                            |
| Resolution                            | 8 bits real time; $\geq 12$ bits with averaging                                                       |
| Auxiliary Trigger Sensitivity         | 300 mVp-p dc to 500 MHz                                                                               |
| Minimum Pulse Width Trigger           | 1 ns at greater than 1.0 div                                                                          |
| Display                               | 8.4 inch color TFT LCD                                                                                |
| Averaging                             | 2 to 4096                                                                                             |
| Interfaces                            | LAN, GPIB, RS-232, Centronics standard                                                                |
| Trigger Holdoff Range                 | 60 ns to 320 ms                                                                                       |
| Glitch Capture Width                  | as narrow as 500 ps                                                                                   |
| Runt Trigger                          | Option 015 on this model class                                                                        |
| Bandwidth                             | 500 MHz                                                                                               |
| Rise Time                             | Equivalent Time: 700 ps                                                                               |

# 54815A Specifications

| PARAMETER                                             | VALUE                                                                                                                             |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Agilent 54815A Infiniium Oscilloscope                 | Overview                                                                                                                          |
| Applications                                          | Four-channel embedded and analog debug at 500 MHz, timing relationships across multiple signals, and Infiniium mask/eye analysis. |
| Key Features                                          | Four simultaneous channels at 500 MHz / 1 GSa/s                                                                                   |
| Same Infiniium measurement and mask toolset as 54810A | Auxiliary trigger input path on 4-channel models                                                                                  |
| Technical Specifications                              | Channels: 4 simultaneous acquisition                                                                                              |
| Notes                                                 | From Agilent Infiniium 54800-series data sheet 54815A column. Runt trigger is Option 015 on 54810/15/20/25A class models.         |

# 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                                                                                                 |
| Channels                                                                                                                  | 4 simultaneous acquisition                                                                            |
| Analog Bandwidth                                                                                                          | 500 MHz                                                                                               |
| Real Time Sample Rate                                                                                                     | 1 GSa/s on each channel                                                                               |
| Equivalent Time Effective Sample Rate                                                                                     | 100 GSa/s                                                                                             |
| Memory Depth                                                                                                              | 32768 points per channel                                                                              |
| Real Time Bandwidth                                                                                                       | 250 MHz                                                                                               |
| Rise Time Equivalent Time                                                                                                 | 700 ps                                                                                                |
| Rise Time Real Time                                                                                                       | 1.4 ns                                                                                                |
| Vertical Sensitivity                                                                                                      | 1 mV/div to 5 V/div                                                                                   |
| Input Impedance                                                                                                           | 1 Mohm $\pm$ 1% or 50 ohm $\pm$ 1%                                                                    |
| Maximum Input 1 Mohm                                                                                                      | $\pm$ 250 V (dc+ac) CATIMaximum Input 50 Ohm: 5 Vrms CATIMain Time Base Range: 500 ps/div to 20 s/div |
| Timebase Accuracy                                                                                                         | 50 ppm                                                                                                |
| DC Gain Accuracy                                                                                                          | $\pm$ 1.25% of full scale                                                                             |
| Resolution                                                                                                                | 8 bits real time; $\geq$ 12 bits with averaging                                                       |
| Auxiliary Trigger Sensitivity                                                                                             | 300 mVp-p dc to 500 MHz                                                                               |
| Minimum Pulse Width Trigger                                                                                               | 1 ns at greater than 1.0 div                                                                          |
| Display                                                                                                                   | 8.4 inch color TFT LCD                                                                                |
| Averaging                                                                                                                 | 2 to 4096                                                                                             |
| Interfaces                                                                                                                | LAN, GPIB, RS-232, Centronics standard                                                                |
| Trigger Holdoff Range                                                                                                     | 60 ns to 320 ms                                                                                       |
| Glitch Capture Width                                                                                                      | as narrow as 500 ps                                                                                   |
| Runt Trigger                                                                                                              | Option 015 on this model class                                                                        |
| Notes                                                                                                                     |                                                                                                       |
| From Agilent Infiniium 54800-series data sheet 54815A column. Runt trigger is Option 015 on 54810/15/20/25A class models. |                                                                                                       |

# Ordering Information

| OPTION     | DESCRIPTION         |
|------------|---------------------|
| Option 015 | on this model class |

## Available from Aumictech

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

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

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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.