


**Aumictech**

Test &amp; measurement • bought, sold, repaired, calibrated

**Data Sheet**

August 14, 2026

AGILENT / KEYSIGHT

# Agilent/Keysight U2354A

Agilent Keysight U2354A USB Modular Multifunction DAQ The Agilent/Keysight U2354A provides 16-channel 16-bit analog inputs at up to 500 kSa/s without analog outputs. OEM ordering lists it as the companion to U2353A for input-only higher-speed applications while keeping 24-bit DIO, counters, and U2781A chassis synchronization. High-speed analog logging without AO, multi-module synchronized acquisition, and compact USB test systems. Analog Input Resolution: 16 bits no missing codes The Agilent/Keysight U2354A provides 16-channel 16-bit analog inputs at up to 500 kSa/s without analog outputs. OEM ordering lists it as the companion to U2353A for input-only higher-speed applications while keeping 24-bit DIO, counters, and U2781A chassis synchronization. High-speed analog logging without AO, multi-module synchronized acquisition, and compact USB test systems. Analog Input Resolution: 16 bits no missing codes Bipolar Input Ranges: plus or minus 10 V 5 V 2.5 V 1.25 V



MODEL

**Agilent / Keysight  
U2354A**

CALIBRATION

**Available on  
request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**U2354A**

LISTING

[https://aumictechlabs.c  
om/products/u2354a-  
2/](https://aumictechlabs.com/products/u2354a-2/)

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

## This unit

The Keysight U2354A is a multifunction USB data acquisition module delivering 16-bit analog input and programmable digital I/O in a compact form factor. This DAQ device acquires analog signals at up to 500 kSa/s across 16 single-ended or 8 differential channels, with 24-bit digital I/O and dual counter channels for timing and event measurement. Operating as a standalone

instrument or integrated into a U2781A USB modular chassis, the U2354A supports design validation, manufacturing test, data logging, and physical measurements across engineering and research applications.

**Technical Specifications**

Analog input: 16 single-ended or 8 differential channels, 16-bit resolution  
Sampling rate: Up to 500 kSa/s  
Input voltage range: 0 to 12 V  
Maximum input current: 10  $\mu$ A  
Analog bandwidth: 400 kHz  
Digital I/O: 24-bit programmable TTL channels  
Counter channels: 2 general purpose  
Onboard memory: 8M points  
Interface: Hi-Speed USB 2.0 (USBTMC-USB488)  
Dimensions: 182.4 mm  $\times$  120 mm  $\times$  44 mm  
Weight: 565 g  
Operating temperature: 0°C to +55°C

**Key Features**

Configurable as digital multimeter (polling mode) or oscilloscope (continuous mode with triggering)  
Burst mode for simulated simultaneous analog acquisition  
Self-calibration to maintain offset accuracy  
Standalone or modular chassis operation  
Includes BenchVue software license and Keysight Measurement Manager (AMM)  
Optional terminal blocks (U2901A, U2902A) for field connections

**Typical Applications**

Design validation and prototyping  
Manufacturing test and process monitoring  
Data logging and sensor interface  
Physical measurements and environmental monitoring

**Compatibility & Integration**

Operates under Microsoft Windows with support for Keysight VEE, MATLAB R2007a, NI LabVIEW, Microsoft Visual Studio, and C++/C#/VB development environments. Integrates with U2781A USB modular instrument chassis for expanded measurement systems. Product discontinued June 1, 2024; Keysight provides five-year post-discontinuation support.

## U2354A Characteristics / Specifications

| PARAMETER                        | VALUE                                     |
|----------------------------------|-------------------------------------------|
| Analog Input Resolution          | 16 bits no missing codes                  |
| Analog Input Channels            | 16 SE / 8 DI                              |
| Maximum Sampling Rate            | 500 kSa/s                                 |
| Analog Output Channels           | 0                                         |
| Bipolar Input Ranges             | plus or minus 10 V 5 V 2.5 V 1.25 V       |
| Unipolar Input Ranges            | 0 to 10 V 5 V 2.5 V 1.25 V                |
| Input Impedance                  | 1 GOhm / 100 pF                           |
| Overvoltage Protection Power On  | continuous plus or minus 30 V             |
| Digital I/O Bits                 | 24 bit programmable                       |
| Counter Channels                 | 2 independent up down                     |
| FIFO Buffer Analog Input         | up to 8 MSa                               |
| Scan List Memory                 | up to 100 channel entries                 |
| Module Dimension With Case WxDxH | 120.00 × 182.40 × 44.00 mm                |
| Weight With Case                 | 565 g                                     |
| Remote Interface                 | Hi Speed USB 2.0                          |
| Device Class                     | USBTMC USB488                             |
| Operating Temperature            | 0 C to 55 C                               |
| Power Requirement                | plus 12 VDC 2 A max input rated           |
| IO Connector                     | 68 pin female VHDCI                       |
| Relative Humidity Operating      | 15 to 85 percent noncondensing            |
| Altitude Maximum                 | 2000 m                                    |
| Calibration Warmup Recommended   | 20 minutes                                |
| Onboard Reference                | 5 V                                       |
| Humidity                         | Operating: 15 to 85 percent noncondensing |

# U2354A Specifications

| PARAMETER                                             | VALUE                                                                                                       |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Agilent Keysight U2354A USB Modular Multifunction DAQ | Overview                                                                                                    |
| Key Features                                          | 500 kSa/s analog inputs                                                                                     |
| No analog outputs                                     | 16 SE or 8 DI channels                                                                                      |
| Technical Specifications                              | Analog Input Resolution: 16 bits no missing codes                                                           |
| Notes                                                 | From Keysight U2300A Series data sheet model table for U2354A (16-channel 500 kSa/s without analog output). |

# General Specifications & Supplementary Characteristics

| PARAMETER                      | VALUE                                                                                                                 |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Operating temperature          | 0 C to 55 C                                                                                                           |
| Operating Temperature          | 0 C to 55 C                                                                                                           |
| Humidity                       | Operating: 15 to 85 percent noncondensing                                                                             |
| Power Requirement              | plus 12 VDC 2 A max input rated                                                                                       |
| IO Connector                   | 68 pin female VHDCI                                                                                                   |
| Relative Humidity Operating    | 15 to 85 percent noncondensing                                                                                        |
| Altitude Maximum               | 2000 m                                                                                                                |
| Calibration Warmup Recommended | 20 minutes                                                                                                            |
| Onboard Reference              | 5 V Notes From Keysight U2300A Series data sheet model table for U2354A (16-channel 500 kSa/s without analog output). |

# 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                               |
| Analog Input Resolution                                                                                     | 16 bits no missing codes            |
| Analog Input Channels                                                                                       | 16 SE / 8 DI                        |
| Maximum Sampling Rate                                                                                       | 500 kSa/s                           |
| Analog Output Channels                                                                                      | 0                                   |
| Bipolar Input Ranges                                                                                        | plus or minus 10 V 5 V 2.5 V 1.25 V |
| Unipolar Input Ranges                                                                                       | 0 to 10 V 5 V 2.5 V 1.25 V          |
| Input Impedance                                                                                             | 1 GOhm / 100 pF                     |
| Overvoltage Protection Power On                                                                             | continuous plus or minus 30 V       |
| Digital I/O Bits                                                                                            | 24 bit programmable                 |
| Counter Channels                                                                                            | 2 independent up down               |
| FIFO Buffer Analog Input                                                                                    | up to 8 MSa                         |
| Scan List Memory                                                                                            | up to 100 channel entries           |
| Module Dimension With Case WxDxH                                                                            | 120.00 x 182.40 x 44.00 mm          |
| Weight With Case                                                                                            | 565 g                               |
| Remote Interface                                                                                            | Hi Speed USB 2.0                    |
| Device Class                                                                                                | USBTMC USB488                       |
| Operating Temperature                                                                                       | 0 C to 55 C                         |
| Power Requirement                                                                                           | plus 12 VDC 2 A max input rated     |
| IO Connector                                                                                                | 68 pin female VHDCI                 |
| Relative Humidity Operating                                                                                 | 15 to 85 percent noncondensing      |
| Altitude Maximum                                                                                            | 2000 m                              |
| Calibration Warmup Recommended                                                                              | 20 minutes                          |
| Onboard Reference                                                                                           | 5 V                                 |
| Notes                                                                                                       |                                     |
| From Keysight U2300A Series data sheet model table for U2354A (16-channel 500 kSa/s without analog output). |                                     |

### 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

#### Aumictech

788 S 500 E, Pleasant Grove, UT 84062  
[sales@aumictech.com](mailto: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.