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**Data Sheet**

August 3, 2026

KEYSIGHT

# Keysight L4451A 4-Channel D/A Converter with Waveform Memory

Keysight L4451A 4-Channel D/A Converter with Waveform Memory The Agilent/Keysight L4451A is an LXI Class C 4-channel isolated D/A converter with onboard waveform memory. Each channel can source  $\pm 16$  V (up to 10 mA) or  $\pm 20$  mA with 16-bit resolution and up to 200 kpoints/s point-to-point arbitrary playback. Shared 500 k-point memory stores up to 32 waveforms dynamically allocated across channels. Precision bias / setpoint generation; analog programmable power-supply control; multi-channel arbitrary stimulus for functional test and HIL; distributed LXI rack placement near the DUT via Ethernet. The Agilent/Keysight L4451A is an LXI Class C 4-channel isolated D/A converter with onboard waveform memory. Each channel can source  $\pm 16$  V (up to 10 mA) or  $\pm 20$  mA with 16-bit resolution and up to 200 kpoints/s point-to-point arbitrary playback. Shared 500 k-point memory stores up to 32 waveforms dynamically allocated across channels. Precision bias / setpoint generation; analog programmable power-supply control; multi-channel arbitrary stimulus for functional test and HIL; distributed LXI rack placement near the DUT via Ethernet.

No photo

MODEL

**Keysight L4451A**

CALIBRATION

**N/A — off-catalog  
OEM datasheet**

CONDITION

**See OEM  
documentation**

STATUS

**Not listed on  
Aumictech  
inventory**

RFQ / SKU

**L4451A**

LISTING

**Off-catalog — OEM dat  
asheet only**

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

## Features & description

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From manufacturer datasheet

### Features

- 4 galvanically isolated analog outputs • Voltage:  $\pm 16$  V up to 10 mA; Current:  $\pm 20$  mA (compliance  $\pm 12$  V) • Resolution: 16-bit (500  $\mu$ V voltage; 630 nA current) • Update rate: 200 kHz / 200 kpoints/s • Waveform memory: 500 k points global; up to 32 waveforms • Standard shapes: sine, square, ramp; user arb up to full memory depth • Isolation: > 80 VDC/AC peak (chan-to-chassis or chan-to-chan) • LXI Ethernet + graphical web interface • Sync: software commands or external trigger; CLK accuracy 100 ppm

## L4451A Characteristics / Specifications

| PARAMETER                      | VALUE                                                                                                                                                                                                            |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model                          | L4451A                                                                                                                                                                                                           |
| Manufacturer                   | Keysight Technologies (Agilent)                                                                                                                                                                                  |
| Instrument Type                | 4-Channel Isolated D/A Converter with Waveform Memory                                                                                                                                                            |
| Alias                          | L4451A; Agilent L4451A Voltage Output                                                                                                                                                                            |
| Amplitude                      | ±16 V up to 10 mA                                                                                                                                                                                                |
| Resolution                     | 16-bit (500 µV voltage; 630 nA current)                                                                                                                                                                          |
| Amplitude Accuracy (DC)        | ±(0.05% + 3.0 mV)                                                                                                                                                                                                |
| Ripple and Noise               | < 2 mVrms, 20 Hz to 250 kHz into 10 kΩ                                                                                                                                                                           |
| Settling Time                  | 40 µs (–FS to +FS step, single channel, to rated accuracy)                                                                                                                                                       |
| Output Impedance (sensed)      | < 1 Ω                                                                                                                                                                                                            |
| Monotonic                      | to 16 bits Current Output                                                                                                                                                                                        |
| Range                          | ±20 mA                                                                                                                                                                                                           |
| Compliance Voltage             | ±12 V                                                                                                                                                                                                            |
| Waveform Memory                | 500 k points global; up to 32 waveforms                                                                                                                                                                          |
| Stored Waveforms               | up to 32                                                                                                                                                                                                         |
| Update Rate                    | 200 kHz / 200 kpoints/s                                                                                                                                                                                          |
| Internal/External CLK Accuracy | 100 ppm                                                                                                                                                                                                          |
| Instrument States              | 5 with user labels General                                                                                                                                                                                       |
| Power                          | 100–240 V ±10%, 50–60 Hz; 15 VA                                                                                                                                                                                  |
| Operating                      | 0 °C to 55 °C full accuracy; to 80% RH at 40 °C                                                                                                                                                                  |
| Storage                        | –40 °C to 70 °C                                                                                                                                                                                                  |
| Weight                         | 3.7 kg (8.2 lbs)                                                                                                                                                                                                 |
| Connector                      | 50-pin D-sub (typical L4451A I/O) Operational Notes Prefer Agilent L4451A datasheet 5989-4830EN for full AC/accuracy footnotes. Related LXI modules (L4450A, L4452A) are different functions—do not cross-match. |
| Voltage                        | ±16 V up to 10 mA; Current: ±20 mA (compliance ±12 V)                                                                                                                                                            |

| PARAMETER       | VALUE                                                       |
|-----------------|-------------------------------------------------------------|
| Standard shapes | sine, square, ramp; user arb up to full memory depth        |
| Isolation       | > 80 VDC/AC peak (chan-to-chassis or chan-to-chan)          |
| Sync            | software commands or external trigger; CLK accuracy 100 ppm |

# 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                                                      | L4451A                                                     |
| Manufacturer                                               | Keysight Technologies (Agilent)                            |
| Instrument Type                                            | 4-Channel Isolated D/A Converter with Waveform Memory      |
| Alias                                                      | L4451A; Agilent L4451A                                     |
| Voltage Output                                             |                                                            |
| Specifications                                             |                                                            |
| PARAMETER                                                  | VALUE                                                      |
| Amplitude                                                  | ±16 V up to 10 mA                                          |
| Resolution                                                 | 16-bit = 500 µV                                            |
| Amplitude Accuracy (DC)                                    | ±(0.05% + 3.0 mV)                                          |
| Ripple and Noise                                           | < 2 mVrms, 20 Hz to 250 kHz into 10 kΩ                     |
| Settling Time                                              | 40 µs (-FS to +FS step, single channel, to rated accuracy) |
| Output Impedance (sensed)                                  | < 1 Ω                                                      |
| Monotonic                                                  | to 16 bits                                                 |
| Current Output                                             |                                                            |
| Range: ±20 mA                                              |                                                            |
| Resolution: 16-bit = 630 nA                                |                                                            |
| Accuracy (90-day, within ±5 °C of Tcal): ±(0.09% + 5.0 µA) |                                                            |
| Ripple and Noise: < 2 µArms, 20 Hz to 250 kHz into 250 Ω   |                                                            |
| Compliance Voltage: ±12 V                                  |                                                            |
| Max Open-Circuit Voltage: < ±22 V                          |                                                            |
| Memory / Timing                                            |                                                            |
| Specifications                                             |                                                            |
| PARAMETER                                                  | VALUE                                                      |
| Waveform Memory                                            | 500 k points                                               |
| Stored Waveforms                                           | up to 32                                                   |
| Update Rate                                                | 200 kpoints/s                                              |
| Internal/External CLK Accuracy                             | 100 ppm                                                    |

| PARAMETER         | VALUE              |
|-------------------|--------------------|
| Instrument States | 5 with user labels |

General

Specifications

| PARAMETER | VALUE                                           |
|-----------|-------------------------------------------------|
| Power     | 100-240 V ±10%, 50-60 Hz; 15 VA                 |
| Operating | 0 °C to 55 °C full accuracy; to 80% RH at 40 °C |
| Storage   | -40 °C to 70 °C                                 |

Dimensions (H×W×L): 40.9 × 212.3 × 379.3 mm  
Weight: 3.7 kg (8.2 lbs)  
Connector: 50-pin D-sub (typical L4451A I/O)

Operational Notes  
Prefer Agilent L4451A datasheet 5989-4830EN for full AC/accuracy footnotes. Related LXI modules (L4450A, L4452A) are different functions-do not cross-match.

### Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: N/A — off-catalog OEM datasheet. See OEM documentation · Not listed on Aumictech inventory.

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

#### Aumictech

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NIST-traceable calibration · SAM registered ·  
30-day returns  
NAICS 423690 · 811210 · 541380  
Generated August 3, 2026

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