

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 34951A 4-Channel D/A Converter with Waveform Memory for 34980A

Keysight Agilent 34951A 4-Channel Isolated D/A Converter with Waveform Memory for 34980A The Keysight 34951A provides four isolated DAC channels with onboard waveform memory for the 34980A mainframe. OEM 34980A datasheet rates plus or minus 16 V or plus or minus 20 mA outputs, 16-bit monotonicity, 200 kHz point-to-point update, and greater than 80 V isolation channel-to-chassis. Stimulus generation, bias sequencing, and arbitrary waveform drive inside automated switch/measure racks. Four independent isolated analog channels The Keysight 34951A provides four isolated DAC channels with onboard waveform memory for the 34980A mainframe. OEM 34980A datasheet rates plus or minus 16 V or plus or minus 20 mA outputs, 16-bit monotonicity, 200 kHz point-to-point update, and greater than 80 V isolation channel-to-chassis. Stimulus generation, bias sequencing, and arbitrary waveform drive inside automated switch/measure racks. Four independent isolated analog channels Onboard waveform memory shared across channels



MODEL

**Agilent / Keysight
34951A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

34951A

LISTING

<https://aumictechlabs.com/products/34951a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight 34951A is a 4-channel isolated digital-to-analog converter module for the 34980A Multifunction Switch/Measure Unit. It delivers precise analog signal generation with DC voltage

outputs up to ± 16 V, DC current outputs up to ± 20 mA, and point-to-point arbitrary waveform generation from an on-board memory bank exceeding 500,000 points. Each channel updates at 200 kHz with 16-bit resolution and 500 μ V voltage output resolution. The module's electronically isolated channels can be stacked or combined to reach ± 64 V, making it ideal for bias voltage sourcing, programmable power supply control, and test system automation. Hardware remote sensing on voltage outputs compensates for lead drops in precision applications.

Technical Specifications

Channels:	4 isolated analog outputs
Output Voltage:	± 16 V DC, 500 μ V resolution
Output Current:	± 20 mA DC
Resolution:	16 bits
Update Rate:	200 kHz per channel
Waveform Memory:	Over 500,000 points, dynamically allocated across one or more channels
Waveform Capability:	Standard and user-defined arbitrary waveforms, point-to-point generation
Channel Isolation:	Electronic isolation; multiple modules can stack or combine for ± 64 V operation
Remote Sensing:	Hardware remote-sensing capability on voltage outputs

Key Features

- Four independent isolated output channels eliminate ground-loop interference
- Large waveform memory permits complex signal sequences without host processor intervention
- Flexible memory allocation allows optimization for single-channel high-resolution or multi-channel concurrent output scenarios
- Channel stacking supports extended voltage ranges beyond ± 16 V
- Remote sensing provides load-independent voltage accuracy

Typical Applications

- Bias voltage and offset sourcing
- Programmable power supply control and setpoint establishment
- Control system actuation and stimulus generation
- Precision waveform generation for automated test sequences

Compatibility & Integration

The 34951A installs as a plug-in module in any of the eight slots of the 34980A Multifunction Switch/Measure Unit mainframe. Refer to 34980A documentation for per-channel current ratings at specified voltages and environmental operating conditions.

Features & description

From manufacturer datasheet

Built-in sine square and ramp shapes plus user waveforms

Software or external trigger synchronization Gain and offset adjustable on the fly Technical Specifications Model: 34951A Instrument Type: 4-channel isolated D/A converter with waveform memory Host Mainframe: 34980A Output Channels: 4 Voltage Amplitude Range: plus or minus 16 V up to 10 mA Voltage Resolution: 16 bits equals 500 μ V Voltage Accuracy 90 Day: plus or minus (0.05 percent + 3.0 mV) Voltage Ripple Noise: less than 2 mVrms 20 Hz to 250 kHz into 10 kOhm Voltage Settling Time: 40 μ s full-scale step single channel to rated accuracy Output Impedance Sensed: less than 1 Ohm Current Range: plus or minus 20 mA Current Resolution: 16 bits equals 630 nA Current Accuracy 90 Day: plus or minus (0.09 percent + 5.0 μ A) Current Ripple Noise: less than 2 μ Arms 20 Hz to 250 kHz into 250 Ohm Compliance Voltage Current Mode: plus or minus 12 V Isolation Chan To Chassis: greater than 80 VDC/AC peak Isolation Chan To Chan: greater than 80 VDC/AC peak Maximum Update Rate: 200 kHz point-to-point Monotonicity: to 16 bits Waveform Memory Class: 500 k points global up to 32 waveforms Internal External Clk Accuracy: 100 ppm Trigger Input Logic: 3.3 V logic 5 V tolerant Form Factor: 34980A plug-in module

34951A Characteristics / Specifications

PARAMETER	VALUE
Model	34951A
Instrument Type	4-channel isolated D/A converter with waveform memory
Host Mainframe	34980A
Output Channels	4
Voltage Amplitude Range	plus or minus 16 V up to 10 mA
Voltage Resolution	16 bits equals 500 μ V
Voltage Accuracy 90 Day	plus or minus (0.05 percent + 3.0 mV)
Voltage Ripple Noise	less than 2 mVrms 20 Hz to 250 kHz into 10 kOhm
Voltage Settling Time	40 μ s full-scale step single channel to rated accuracy
Output Impedance Sensed	less than 1 Ohm
Current Range	plus or minus 20 mA
Current Resolution	16 bits equals 630 nA
Current Accuracy 90 Day	plus or minus (0.09 percent + 5.0 μ A)
Current Ripple Noise	less than 2 μ Arms 20 Hz to 250 kHz into 250 Ohm
Compliance Voltage Current Mode	plus or minus 12 V
Isolation Chan To Chassis	greater than 80 VDC/AC peak
Isolation Chan To Chan	greater than 80 VDC/AC peak
Maximum Update Rate	200 kHz point-to-point
Monotonicity	to 16 bits
Waveform Memory Class	500 k points global up to 32 waveforms
Internal External Clk Accuracy	100 ppm
Trigger Input Logic	3.3 V logic 5 V tolerant
Form Factor	34980A plug-in module

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	34951A
Instrument Type	4-channel isolated D/A converter with waveform memory
Host Mainframe	34980A
Output Channels	4
Voltage Amplitude Range	plus or minus 16 V up to 10 mA
Voltage Resolution	16 bits equals 500 uV
Voltage Accuracy 90 Day	plus or minus (0.05 percent + 3.0 mV)
Voltage Ripple Noise	less than 2 mVrms 20 Hz to 250 kHz into 10 kOhm
Voltage Settling Time	40 us full-scale step single channel to rated accuracy
Output Impedance Sensed	less than 1 Ohm
Current Range	plus or minus 20 mA
Current Resolution	16 bits equals 630 nA
Current Accuracy 90 Day	plus or minus (0.09 percent + 5.0 uA)
Current Ripple Noise	less than 2 uArms 20 Hz to 250 kHz into 250 Ohm
Compliance Voltage Current Mode	plus or minus 12 V
Isolation Chan To Chassis	greater than 80 VDC/AC peak
Isolation Chan To Chan	greater than 80 VDC/AC peak
Maximum Update Rate	200 kHz point-to-point
Monotonicity	to 16 bits
Waveform Memory Class	500 k points global up to 32 waveforms
Internal External Clk Accuracy	100 ppm
Trigger Input Logic	3.3 V logic 5 V tolerant
Form Factor	34980A plug-in module
Notes	
From Keysight 34980A data sheet 34951A 4-channel D/A converter with waveform memory section.	

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 15, 2026

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