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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 34980A Multifunction Switch / Measure Unit

Agilent 34980A Multifunction Switch Measure Unit The Agilent/Keysight 34980A is an 8-slot multifunction switch/measure mainframe for medium- to high-density ATE. OEM datasheets list optional internal DMM, switching to 26.5 GHz with microwave modules, digital I/O, counter/totalizer, and analog outputs with Ethernet/web control. Design verification and manufacturing functional test needing high-density switching, microwave path switching, and integrated measure/control in one mainframe. System switching up to 26.5 GHz with microwave modules The Agilent/Keysight 34980A is an 8-slot multifunction switch/measure mainframe for medium- to high-density ATE. OEM datasheets list optional internal DMM, switching to 26.5 GHz with microwave modules, digital I/O, counter/totalizer, and analog outputs with Ethernet/web control. Design verification and manufacturing functional test needing high-density switching, microwave path switching, and integrated measure/control in one mainframe. System switching up to 26.5 GHz with microwave modules Digital I/O, counter/totalizer, and analog output modules



MODEL

**Agilent / Keysight
34980A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

34980A

LISTING

<https://aumictechlabs.com/products/34980a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 34980A is an eight-slot mainframe designed for automated switching, data acquisition, and measurement in test, R&D, and manufacturing environments. This modular platform integrates multiple plug-in cards into a single chassis, enabling custom configurations for diverse switching topologies and analog/digital measurements. The unit delivers scan rates up to 1000 channels per second and supports LXI Class C compliance with LAN, USB 2.0, and GPIB connectivity.

Technical Specifications

Mainframe Architecture 8 user-available slots for plug-in modules

Optional internal 6½ digit (22-bit) digital multimeter (does not occupy user slots)

Scan rate: up to 1000 channels per second

Maximum multiplexer capacity: 560 2-wire channels or 640 1-wire channels

Maximum matrix capacity: 1024 2-wire cross-points or 4096 cross-points per mainframe

RF/microwave switching: up to 20 GHz or 26.5 GHz (module-dependent)

Connectivity LAN, USB 2.0, GPIB interfaces

Built-in graphical web interface for remote browser access

Software support: SCPI, IVI, LabView drivers

Key Features

Switching Modules High-density multiplexers for multi-channel scanning

Full crosspoint matrices for row-to-column connectivity

General-purpose switch modules for control and high-power applications

RF/microwave switching modules up to 26.5 GHz

Measurement Capabilities DC and AC voltage measurement

2-wire and 4-wire resistance measurement

Frequency and period measurement

DC and AC current measurement

Temperature measurement (thermocouples, RTDs, thermistors)

Digital I/O via dedicated modules

D/A converters with DC voltage output ± 16 V and DC current output ± 20 mA

Typical Applications Automated test systems, R&D benches, manufacturing test floors, and environments requiring modular switching and measurement expansion without mainframe replacement.

Compatibility & Integration LXI Class C compliance ensures integration with standard test automation frameworks. Remote access via web interface and support for SCPI/IVI programming enables both local and distributed test configurations.

Features & description

From manufacturer datasheet

Built-in Ethernet with web browser interface

Technical Specifications Module Slots: 8 Switching Frequency Capability Class: up to 26.5 GHz with microwave modules Optional Internal DMM: Yes Counter Totalizer Capability: Yes via system control modules Digital I/O Module Example: 34950A 64-bit digital I/O with memory and counter 34950A Digital Channels: Eight 8-bit digital I/O channels 34950A Counter: Two 10 MHz frequency counters with gate functions 34950A Clock Output: Programmable clock output to 20 MHz 34950A Thresholds: Programmable polarity and thresholds up to 5 V Pattern Memory: Supported on digital I/O module class Analog Outputs: Supported via DAC modules with basic waveforms Remote Interface: Ethernet / LAN with web browser Computer Standard I/O: Yes with software drivers Form Factor: Compact multifunction switch/measure mainframe Primary Use Cases: Design validation, functional test, data acquisition Module Mix And Match: Yes; add/replace modules as needs change External Instrument Routing: Switch signals to internal DMM or external instruments Startup Integration Goal: Fast startup to lower cost of test per OEM positioning Series Family: Keysight/Agilent 34980A Companion Architecture Note: Can be combined with PXI when more capability required

34980A Characteristics / Specifications

PARAMETER	VALUE
Module Slots	8
Switching Frequency Capability Class	up to 26.5 GHz with microwave modules
Counter Totalizer Capability	Yes via system control modules
Digital I/O Module Example	34950A 64-bit digital I/O with memory and counter 34950A Digital Channels: Eight 8-bit digital I/O channels 34950A Counter: Two 10 MHz frequency counters with gate functions 34950A Clock Output: Programmable clock output to 20 MHz 34950A Thresholds: Programmable polarity and thresholds up to 5 V
Pattern Memory	Supported on digital I/O module class
Analog Outputs	Supported via DAC modules with basic waveforms
Remote Interface	Ethernet / LAN with web browser
Computer Standard I/O	Yes with software drivers
Form Factor	Compact multifunction switch/measure mainframe
Primary Use Cases	Design validation, functional test, data acquisition
Module Mix And Match	Yes; add/replace modules as needs change
External Instrument Routing	Switch signals to internal DMM or external instruments
Startup Integration Goal	Fast startup to lower cost of test per OEM positioning
Series Family	Keysight/Agilent 34980A
Companion Architecture Note	Can be combined with PXI when more capability required
Scan Throughput Note	Optimized switch closure to internal DMM path per OEM sheet
Connector Strategy	Standard connectors for ATE integration
Software Drivers	Included / available per OEM datasheet

34980A Specifications

PARAMETER	VALUE
Agilent 34980A Multifunction Switch Measure Unit	Overview
Optional internal DMM measurements	System switching up to 26.5 GHz with microwave modules
Technical Specifications	Module Slots: 8

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

Module Slots: 8

Switching Frequency Capability Class: up to 26.5 GHz with microwave modules

Optional Internal DMM: Yes

Counter Totalizer Capability: Yes via system control modules

Digital I/O Module Example: 34950A 64-bit digital I/O with memory and counter

34950A Digital Channels: Eight 8-bit digital I/O channels

34950A Counter: Two 10 MHz frequency counters with gate functions

34950A Clock Output: Programmable clock output to 20 MHz

34950A Thresholds: Programmable polarity and thresholds up to 5 V

Specifications

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Notes

From Keysight/Agilent 34980A Multifunction Switch/Measure Unit data sheet (5989-1437EN family). Per-module voltage/current/BW tables are module-specific on the full sheet.

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

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NIST-traceable calibration · SAM registered ·
30-day returns
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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.