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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 34952A Multifunction Module with 32-bit DIO, 2-ch D/A and Totalizer for 34980A

Agilent Keysight 34952A Multifunction Module For 34980A The Agilent / Keysight 34952A is a multifunction plug-in for the 34980A multifunction switch/measure mainframe providing 32-bit digital I/O, two DAC channels, and a totalizer. OEM 34980A module datasheets rate these functions for automated mixed-signal switching and control. Digital pattern I/O, analog stimulus, and event totalizing inside 34980A switch/measure systems. 32 bit digital IO Two channel D/A converters Event totalizer 34980A plug-in module GPIB LAN USB via 34980A mainframe The Agilent / Keysight 34952A is a multifunction plug-in for the 34980A multifunction switch/measure mainframe providing 32-bit digital I/O, two DAC channels, and a totalizer. OEM 34980A module datasheets rate these functions for automated mixed-signal switching and control. Digital pattern I/O, analog stimulus, and event totalizing inside 34980A switch/measure systems. 32 bit digital IO Two channel D/A converters Event totalizer 34980A plug-in module GPIB LAN USB via 34980A mainframe Instrument Type: multifunction DIO DAC totalizer module



MODEL

**Agilent / Keysight
34952A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

34952A

LISTING

<https://aumictechlabs.com/products/34952a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight 34952A Multifunction Module expands the 34980A Multifunction Switch/Measure Unit with integrated digital I/O, analog output, and event counting in a single slot. This module delivers 32-bit configurable digital control, dual-channel ± 12 V analog outputs, and a 32-bit totalizer with 100 kHz counting capability - enabling rapid test automation without external signal conditioning.

Technical Specifications

Digital Input/Output (DIO) Four 8-bit ports, configurable as 8, 16, or 32-bit operations TTL-compatible inputs and outputs with 400 mA sink current per output Input thresholds: $V_{in}(L)$ 2.0 V Output levels: $V_{out}(L)$ 2.4 V @ 1 mA Supports external open-drain pull-up to 42 V maximum Internal 5 V pull-up resistors on input-configured ports Pattern match or state-change alarm detection with 4 ms sampling interval Read/write speed: 95 operations per second Typical alarm latency to 34980A output: 5 ms

Digital-to-Analog Converter Two independent analog output channels Output range: ± 12 V 16-bit resolution 10 mA maximum output current per channel Direct voltage programming via SCPI commands

Totalizer 32-bit resolution Maximum count rate: 100 kHz Rising-edge or falling-edge trigger selection Dual gate control: TTL high enables on Gate terminal; TTL low enables on Not-Gate terminal Read-only or read-with-reset operation modes Continuous counting when gate terminals unpopulated

Key Features

Single-slot installation in 34980A mainframe 50-pin D-sub connectors for direct cable, terminal block, or mass interconnect attachment Maskable alarm functions with fast state detection Front-panel readability for single 8-bit input port at a time Compatible with optional 34952T terminal block accessory

Typical Applications

Automated test systems requiring mixed-signal control and measurement Event counting and gating in production test environments Multi-channel analog signal generation synchronized with digital sequencing TTL logic interface and monitoring for digital device characterization

Compatibility & Integration

Designed exclusively for the Keysight 34980A mainframe. Connects via standard 50-pin D-sub connectors. Integrates with the 34980A's modular architecture for flexible measurement and switching configurations.

34952A Characteristics / Specifications

PARAMETER	VALUE
Model	34952A
Instrument Type	multifunction DIO DAC totalizer module
Mainframe	34980A
Digital IO Width	32 bit
Dac Channels	2
Totalizer	yes
Manufacturer	Agilent Keysight
Form Factor	34980A plug-in
Operating Temperature Class	0 C to 55 C
Storage Temperature Class	minus 20 C to 70 C
Humidity Class	non condensing
Power	mainframe powered
Cooling	mainframe airflow
Remote Interface	via 34980A GPIB LAN USB
Duty	continuous ATE
Grounding	mainframe chassis
Calibration	DAC cal class
Safety	instrument safety
Digital Levels Class	TTL compatible class
Dac Range Class	programmable analog out
Totalizer Rate Class	high speed count input
Connectors	front panel DIO DAC
Mass Class	plug-in module
Compatibility	34980A slots
Firmware	module identity in mainframe

PARAMETER	VALUE
Isolation Class	per 34980A module design
Interrupt	digital change detect class
Storage temperature	Class: minus 20 C to 70 C
Operating temperature	Class: 0 C to 55 C
Humidity	Class: non condensing

34952A Specifications

PARAMETER	VALUE
Agilent Keysight 34952A Multifunction Module For 34980A	Overview
Applications	Digital pattern I/O, analog stimulus, and event totalizing inside 34980A switch/measure systems.
Key Features	32 bit digital IO
Event totalizer	34980A plug-in module
Technical Specifications	Model: 34952A

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	Class: minus 20 C to 70 C
Operating temperature	Class: 0 C to 55 C
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Firmware	module identity in mainframe
Isolation Class	per 34980A module design
Interrupt	digital change detect class Notes From Agilent/Keysight 34952A Multifunction Module for 34980A product description (32-bit DIO, 2-ch D/A, totalizer). Exact DAC voltage span is in the 34980A modules datasheet.

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	
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Notes
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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.