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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 4084A

HP Agilent 4084A Switching Matrix Controller for 4062A The HP 4084A is the switching-matrix controller for the 4062A semiconductor parametric test system. OEM HP Journal June 1984 architecture describes the 4084A converting HP-IB (IEEE-488) relay-control codes from the system controller into machine-oriented serial signals that drive the 4085A Switching Matrix, and supplying the DC power that actuates 4085A relays. The 4084A is kept electrically quiet so low-level DC measurements through the 4085A are not disturbed. Together with the 4141A DC source/monitor and 4280A 1 MHzCmeter, the 4084A/4085A multiplex nine instrumentation ports onto 48 measurement pins. The HP 4084A is the switching-matrix controller for the 4062A semiconductor parametric test system. OEM HP Journal June 1984 architecture describes the 4084A converting HP-IB (IEEE-488) relay-control codes from the system controller into machine-oriented serial signals that drive the 4085A Switching Matrix, and supplying the DC power that actuates 4085A relays. The 4084A is kept electrically quiet so low-level DC measurements through the 4085A are not disturbed. Together with the 4141A DC source/monitor and 4280A 1 MHzCmeter, the 4084A/4085A multiplex nine instrumentation ports onto 48 measurement pins. HP-IB relay control and matrix power for 4062A wafer-level DC and C-V parametric test.



MODEL

**Agilent / Keysight
4084A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

4084A

LISTING

<https://aumictechlabs.com/products/4084a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 4084A is a precision impedance analyzer engineered for accurate characterization of electronic components, materials, and circuits across frequencies from 40 Hz to 110 MHz. Operating in a four-terminal pair configuration, it delivers comprehensive measurement capabilities across 20 distinct parameter formats, making it essential for component validation, materials research, and production quality assurance.

Technical Specifications

Measurement Parameters

The 4084A quantifies impedance in multiple representations: $|Z|-\theta$ and $|Y|-\theta$ (magnitude and phase), R-X (resistance and reactance), series and parallel inductance configurations (Ls-Rs, Ls-Q, Lp-G, Lp-Q, Lp-Rp), series and parallel capacitance configurations (Cs-Rs, Cs-Q, Cs-D, Cp-G, Cp-Q, Cp-D, Cp-Rp), G-B (conductance and susceptance), and complex Z-Y. Derived parameters include $|Z|$ -Ls, $|Z|$ -Cs, $|Z|$ -Lp, $|Z|$ -Cp, $|Z|$ -Rs, $|Z|$ -Q, and $|Z|$ -D.

Frequency & Resolution

Frequency range spans 40 Hz to 110 MHz with 1 mHz resolution. Signal Source Voltage test signal: 5 mVrms to 1 Vrms (1 mV resolution). Current test signal: 200 μ Arms to 20 mArms (20 μ A resolution). Test signal level sweeping evaluates voltage and current dependency. DC Bias DC voltage bias: 0 V to ± 40 V (1 mV resolution). DC current bias: 0 mA to ± 100 mA (40 μ A resolution). Auto Level Control (ALC) feedback maintains precise bias throughout sweeps, enabling C-V characterization. Bias sweeping supports dependency evaluation across the full range.

Key Features

- Four-terminal pair configuration with BNC female connectors for high-accuracy measurements
- Signal level dependency evaluation via voltage and current sweeps
- DC bias dependency analysis with automatic level control feedback
- Single-port measurement capability via optional 42942A Terminal Adapter (7 mm) or 42941A Impedance Probe (3.5 mm)

Typical Applications

- Component characterization in R&D environments
- Varactor diode C-V characterization with DC bias sweep capability
- Manufacturing quality control and production testing
- Material impedance profiling across wide frequency span

Compatibility & Integration

The standard four-terminal pair port accepts BNC female connectors. Optional adapters convert to single-port terminal configurations for alternative measurement geometries.

4084A Characteristics / Specifications

PARAMETER	VALUE
Model	4084A
Instrument Type	Switching matrix controller
Host System	4062A semiconductor parametric test system
Related Matrix	4085A Switching Matrix
Control Interface	HP-IB (IEEE-488) relay control codes
Internal Link	machine-oriented serial signals to 4085A
Relay Power	DC power to actuate 4085A relays
Pin Count Context	48 measurement pins on 4062A
Instrument Ports Context	nine instrumentation ports multiplexed by 4085A
Related Dc Subsystem	4141A DC Source/Monitor
Related Capacitance Subsystem	4280A 1 MHzCMeter / C-V Plotter
System Controller	4062A system controller via HP-IB
Low Level Design	4084A kept to a minimum so low-level DC is not affected
Manufacturer	HP Agilent Keysight
Use Case	4062A matrix control
Literature	Hewlett-Packard Journal June 1984 4062A hardware architecture
Family	HP 4062A parametric test
Documentation Type	OEM HP Journal 4062A architecture
Brand Lineage	Hewlett Packard Agilent Keysight
System Role	switching matrix controller
Form Factor	4062A system rack controller
Related Prober	wafer prober controlled via HP-IB in 4062A
Year Class	1984 4062A parametric family
Bus	HP-IB IEEE-488

4084A Specifications

PARAMETER	VALUE
HP Agilent 4084A Switching Matrix Controller for 4062A	Overview
Applications	HP-IB relay control and matrix power for 4062A wafer-level DC and C-V parametric test.
DC power for 4085A relays	48-pin 4062A matrix path
Technical Specifications	Model: 4084A

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	
From Hewlett-Packard Journal June 1984 4062A architecture (4084A HP-IB to serial, 4085A relay power, 48 pins,	

4141A and 4280A). Relay timing, serial-link rate, and supply voltages are on the 4084A/4085A specification pages.

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