

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 3, 2026

KEYSIGHT

Keysight / Agilent 4294A Precision Impedance Analyzer, 40 Hz to 110 MHz

Keysight / Agilent 4294A Precision Impedance Analyzer, 40 Hz to 110 MHz The Agilent/Keysight 4294A is a precision impedance analyzer covering 40 Hz to 110 MHz with basic impedance accuracy of $\pm 0.08\%$ class. It provides OSC levels from 5 mV–1 V / 200 μ A–20 mA, DC bias 0 to ± 40 V / 0 to ± 100 mA, and sweeps of frequency, AC level, and DC bias with up to 801 points. Component and material impedance characterization; equivalent-circuit analysis; R&D and production LCR/impedance testing through RF. The Agilent/Keysight 4294A is a precision impedance analyzer covering 40 Hz to 110 MHz with basic impedance accuracy of $\pm 0.08\%$ class. It provides OSC levels from 5 mV–1 V / 200 μ A–20 mA, DC bias 0 to ± 40 V / 0 to ± 100 mA, and sweeps of frequency, AC level, and DC bias with up to 801 points. Component and material impedance characterization; equivalent-circuit analysis; R&D and production LCR/impedance testing through RF.

No photo

MODEL Keysight 4294A	CALIBRATION N/A — off-catalog OEM datasheet
CONDITION See OEM documentation	STATUS Not listed on Aumictech inventory
RFQ / SKU 4294A	LISTING Off-catalog — OEM dat asheet only

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

Features & description

From manufacturer datasheet

Features

- Frequency: 40 Hz to 110 MHz; resolution 1 mHz
- Frequency accuracy: ± 20 ppm (± 0.13 ppm with Opt 1D5)
- Basic impedance accuracy: $\pm 0.08\%$ (class)
- OSC: 5 mV–1 V / 200 μ A–20 mA
- DC bias: 0– ± 40 V, 0– ± 100 mA
- Sweep: linear/log/list; 2–801 points
- Calibration: Open/Short/Load; compensation and port extension
- Display: 8.4" color TFT; 8 markers; equivalent-circuit functions
- Interfaces: GPIB, LAN (10Base-T), Centronics, VGA, digital I/O

4294A Characteristics / Specifications

PARAMETER	VALUE
Model	4294A
Manufacturer	Keysight Technologies (Agilent/HP)
Instrument Type	Precision Impedance Analyzer
Alias	4294A; Agilent 4294A; HP 4294A Source
Test Frequency	40 Hz to 110 MHz
Frequency Resolution	1 mHz
Frequency Accuracy	±20 ppm (±0.13 ppm with Opt 1D5)
OSC Level	5 mV to 1 V / 200 µA to 20 mA
OSC Resolution	1 mV / 20 µA DC Bias
Level	0 V to ±40 V; 0 A to ±100 mA
Resolution	1 mV / 40 µA Auto level control available Sweep
Parameters	Frequency, AC V, AC I, DC bias V, DC bias ITypes: Linear, Log, List, Zero Span, Manual, Up/Down
Points	2 to 801 General
Display	8.4" color TFT; 8 markers; equivalent-circuit functions
Power	90–132 V or 198–264 V, 47–63 Hz, 300 VA max
Size	222 × 426 × 502 mm; Weight: 25 kg
Operating	0–40 °C, 15–80% RH Operational Notes Prefer Agilent 4294A datasheet for full Z accuracy vs frequency/impedance charts and fixture options (42941A/42942A).
Frequency	40 Hz to 110 MHz; resolution 1 mHz
Basic impedance accuracy	±0.08% (class)
OSC	5 mV–1 V / 200 µA–20 mA
DC bias	0–±40 V, 0–±100 mA
Sweep	linear/log/list; 2–801 points
Calibration	Open/Short/Load; compensation and port extension

PARAMETER	VALUE
Interfaces	GPIO, LAN (10Base-T), Centronics, VGA, digital I/O

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	4294A
Manufacturer	Keysight Technologies (Agilent/HP)
Instrument Type	Precision Impedance Analyzer
Alias	4294A; Agilent 4294A; HP 4294A
Source	
Specifications	
PARAMETER	VALUE
Test Frequency	40 Hz to 110 MHz
Frequency Resolution	1 mHz
Frequency Accuracy	±20 ppm (±0.13 ppm Opt 1D5)
OSC Level	5 mV to 1 V / 200 µA to 20 mA
OSC Resolution	1 mV / 20 µA
DC Bias	
Level: 0 V to ±40 V; 0 A to ±100 mA	
Resolution: 1 mV / 40 µA	
Auto level control available	
Sweep	
Parameters: Frequency, AC V, AC I, DC bias V, DC biasI	
Types: Linear, Log, List, Zero Span, Manual, Up/Down	
Points: 2 to 801	
General	
Specifications	
PARAMETER	VALUE
Display	8.4 inch color LCD (TFT)
Power	90-132 V or 198-264 V, 47-63 Hz, 300 VA max
Size	222 × 426 × 502 mm; Weight: 25 kg
Operating	0-40 °C, 15-80% RH

Operational Notes

Prefer Agilent 4294A datasheet for full $|Z|$ accuracy vs frequency/impedance charts and fixture options (42941A/42942A).

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 · +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.