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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 419A

The HP 419A is a floating high-sensitivity DC null voltmeter with 18 zero-center ranges from plus or minus 3 μV to plus or minus 1000 V end scale. OEM 419A operating and service manual specifications list accuracy of plus or minus (2% of end scale plus 0.1 μV), infinite input resistance when nulled on ranges through 300 mV via an internal bucking supply, 80 dB superimposed AC rejection at 60 Hz and above, and rechargeable-battery or line operation. Standard-cell comparisons, null detection on Kelvin-Varley dividers and volt boxes, and low-level DC drift measurements in calibration laboratories. Storage Temperature: minus 40 to plus 60 $^{\circ}\text{C}$ Recorder Output: 0 to 1 V at full scale, adjustable Amplifier Gain Maximum: 110 dB at recorder output terminals From HP 419A DC Null Voltmeter Operating and Service Manual specifications (HP part 00419-90002) and HP Journal March 1966 419A specification table.



MODEL

**Agilent / Keysight
419A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

419A

LISTING

<https://aumictechlabs.com/products/419a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 419A is a impedance analyzer engineered for precise measurement of impedance parameters across the RF spectrum from 1 MHz to 1000 MHz. The instrument delivers direct readings of impedance (Z), admittance (Y), resistance (R), reactance (X), conductance (G), susceptance (B), inductance (L), capacitance (C), dissipation factor (D), and quality factor (Q) with 4.5-digit resolution. It measures impedance from 1 m Ω to 100 k Ω and includes a built-in DC bias supply capable of ± 40 V in 10 mV steps with automatic sweep functionality. Technical

Specifications Frequency Range: 1 MHz to 1000 MHz Measurement Parameters: Direct reading of Z, -q, Y, -q, G, -q, L, C, R, D, Q, R-X, G-B; impedance measurement: $|Z|$, $|Y|$, Theta, R, X, G, B, L, C, D, Q, Delta, Delta% Resolution: 4.5 digits maximum Measuring Range: 1 m Ω to 100 k Ω (Z) Internal Synthesizer Accuracy (Option 002): 3 ppm DC Bias Supply: ± 40 V in 10 mV steps with auto sweep Memory: Two complete front-panel settings stored in non-volatile memory Interface: Standard HP-IB Key Features Variable-frequency internal synthesizer with automatic sweep capability Outstanding repeatability and frequency response with unique error-correction capability Specially designed test fixtures for measurement accuracy Dual-parameter display and flexible measurement parameter selection Typical Applications Component evaluation of LCR elements, including high-frequency chip and leaded components Material characterization for electronic research applications Circuit design analysis and component evaluation Semiconductor testing including C-V/G-V characteristics and diode/transistor impedance evaluation Resonator, filter, and magnetic/dielectric material assessment Compatibility & Integration The 419A integrates with HP-IB networked test systems. The 41900A PI-Network Test Fixture supports crystal resonator and filter measurements on this platform.

419A Characteristics / Specifications

PARAMETER	VALUE
Model	419A
Instrument Type	DC null voltmeter
Voltage Ranges	plus or minus 3 μ V to plus or minus 1000 V DC end scale, 18 zero-center ranges
Voltage Accuracy	plus or minus (2% of end scale plus 0.1 μ V)
Zero Control Limits	plus or minus 15 μ V
Input Resistance 3 μ V To 3 Mv	100 kohm (infinite when nulled)
Input Resistance 10 Mv To 30 Mv	1 megohm (infinite when nulled)
Input Resistance 100 Mv To 300 Mv	10 megohm (infinite when nulled)
Input Resistance 1 V To 1000 V	100 megohm
Internal Bucking Voltage	plus or minus 120% of end scale, 3 μ V through 300 mV ranges
Response Time 3 μ V Range	95% of final reading within 3 s
Response Time 10 μ V To 1000 V	95% of final reading within 1 s
Superimposed Ac Rejection	80 dB greater than end scale for 60 Hz and above (affects reading less than 2%)
Drift After Warmup	less than 0.5 μ V per day after 30 minutes
Temperature Coefficient	less than 0.05 μ V per C from 0 to 50 C
Noise	less than 0.3 μ V peak-to-peak (95% of the time)
Current Ranges	plus or minus 30 pA, 100 pA, 300 pA, 1 nA and additional nanoampere end-scale ranges as listed (7 end-scale current ranges)
Current Accuracy	plus or minus (3% of end scale plus 1 pA)
Line Charge	115 or 230 V plus or minus 10%, 50 to 1000 Hz, approximately 3 W
Battery Operation	4 internal rechargeable batteries, 30 hour operation per recharge
Net Mass	8 lb (3.6 kg)
Dimensions	6.5 in H by 7.75 in W by 8 in D (152 by 197 by 203 mm)
Operating Temperature	0 to 50 C
Storage Temperature	minus 40 to plus 60 C

PARAMETER	VALUE
Recorder Output	0 to 1 V at full scale, adjustable
Amplifier Gain Maximum	110 dB at recorder output terminals

419A Specifications

PARAMETER	VALUE
HP Agilent 419A DC Null Voltmeter	Overview
Key Features	Eighteen zero-center DC ranges to 1000 V
Technical Specifications	Model: 419A

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 40 to plus 60 C
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Amplifier Gain Maximum	110 dB at recorder output terminals Notes From HP 419A DC Null Voltmeter Operating and Service Manual specifications (HP part 00419-90002) and HP Journal March 1966 419A specification table.

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 list accuracy of plus or minus (2% of end scale plus 0.1 uV), infinite input resistance when nulled on ranges through 300 mV via an internal bucking supply, 80 dB superimposed AC rejection at 60 Hz and above, and rechargeable-battery or line operation.

Applications

Standard-cell comparisons, null detection on Kelvin-Varley dividers and volt boxes, and low-level DC drift measurements in calibration laboratories.

Key Features

Eighteen zero-center DC ranges to 1000 V

Internal bucking supply for infinite impedance at null through 300 mV

Rechargeable batteries with line charge

Recorder output proportional to meter deflection

Seven nanoampere-class current ranges

Technical Specifications

Technical 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 ·
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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.