

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 12, 2026

HP / AGILENT

HP / Agilent 4271A Digital LCR Meter

The 4271A is a 1 MHz digital LCR meter for high-speed measurement of low-value L, C, and R using a four-terminal-pair technique to reduce lead parasitics. It was designed for semiconductor and thin-film hybrid measurements with low test levels and optional programmable DC bias. Inductance test currents: 5 mA to 2 uA class Reading rate class: 5 or more readings per second DC bias option: 0 to 39.9 V in 0.1 V steps Specs from HP Journal March 1974 (4271A introduction) and product overviews. Confirm options and bias source on the unit.



MODEL

HP / Agilent 4271A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

4271A

LISTING

<https://aumictechlabs.com/products/4271a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 4271A is a precision digital LCR meter engineered for rapid, accurate measurement of inductance, capacitance, resistance, dissipation factor, and conductance at 1 MHz $\pm 0.01\%$. Operating on a four-terminal pair measurement technique, it minimizes errors from stray capacitance and residual inductance - critical for evaluating low-value components and high-frequency characteristics. Dual 4½-digit LED displays with 90% overrange capability deliver clear readout, while measurement speeds up to 5 readings per second support high-throughput production testing and quality control workflows. Technical Specifications Measurement Parameters: Inductance (L), capacitance (C), resistance (R), dissipation factor (D), and conductance (G). Frequency: 1 MHz $\pm 0.01\%$ Measurement Ranges: Capacitance: 0.000 pF to

19,000 nF; resolution 0.001 pF Inductance: 0.000 nH to 1900.0 μ H; resolution 0.1 nH Resistance: 10 ohms to 10 kohms full scale Conductance: 100.00 μ S to 100.00 mS full scale Dissipation factor: Measured with C-D or L-D modes Accuracy: Basic accuracy 0.1%; L, C, and R accuracy 0.2% of reading (0°C to 50°C). Test Signal Levels: Capacitance measurement at 20 mVrms (low) or 500 mVrms (high); inductance measurement at 5 mA to 2 μ A test current. Measurement Speed: Up to 5 readings/second; C-G and L-R modes 100–250 ms; C-D and L-D modes 160–400 ms. Display: Dual 4½-digit LED with 90% overrange. Environmental: Operating temperature 0°C to 50°C; humidity to 95% RH at 40°C. Power: 100/120/220 VAC. Key Features Four-terminal pair technique eliminates stray and residual component effects Offset adjustment compensates fixture stray capacitance, inductance, resistance, and conductance Optional DC bias (Option 001): 00.0 V to 39.9 V in 0.1 V increments; $\pm 0.2\%$ of setting ± 5 mV accuracy; 1.5 k Ω $\pm 10\%$ output resistance Optional calculator interface (Option 005) via TTL I/O for HP 9810A/9820A integration Typical Applications Production testing, quality control, component characterization, and circuit design verification in electronics manufacturing.

Features & description

From manufacturer datasheet

Features

- Four-terminal-pair measurement reduces lead coupling errors
- Offset adjustments for residual L/R and stray C/G
- Four-digit LED display with 90% overrange
- Optional remotely programmable DC bias 0 to 39.9 V in 0.1 V steps
- Calculator/computer interface options

Applications

- Semiconductor junction C-V and low-value component test
- Thin-film hybrid L/C/R characterization
- High-speed production measurements at 1 MHz
- Four-terminal-pair fixture measurements up to about 1 m cable

4271A Characteristics / Specifications

PARAMETER	VALUE
Model	4271A
Manufacturer	HP / Agilent
Instrument Type	Digital LCR Meter
Alias	4271A; Agilent 4271A; HP 4271A
Test frequency	1 MHz Lrange class: 1000 nH to 1000 uH (overview); display 0.1 nH to 1900.0 uH Crange class: 10 pF to 10 nF (overview); display 0.001 pF to 19.000 nF Rrange class: 10 ohm to 10 kohm (overview); display 0.001 ohm to 19.000 kohm Grange class: 0.01 umho to 190.00 mmho Drange: 0.0001 to 1.6000
Basic accuracy Cclass	0.1%
Basic accuracy L/R/G class	0.2%
Basic accuracy overall class	0.1% to 1.2%
Minimum resolution	0.1 nH; 0.001 pF; 1 mohm
Capacitance test voltages	20 mV and 500 mV rms
Inductance test currents	5 mA to 2 uA class
Reading rate class	5 or more readings per second
DC bias option	0 to 39.9 V in 0.1 V steps Notes Specs from HP Journal March 1974 (4271A introduction) and product overviews. Confirm options and bias source on the unit.

4271A Specifications

PARAMETER	VALUE
HP / Agilent 4271A Digital LCR Meter	Overview
Applications	- Semiconductor junction C-V and low-value component test
Key Features	- Four-terminal-pair measurement reduces lead coupling errors
Technical Specifications	Model: 4271A
Notes	Specs from HP Journal March 1974 (4271A introduction) and product overviews. Confirm options and bias source on the unit.

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
Test frequency	1 MHz
L range class	1000 nH to 1000 uH (overview); display 0.1 nH to 1900.0 uH
C range class	10 pF to 10 nF (overview); display 0.001 pF to 19.000 nF
R range class	10 ohm to 10 kohm (overview); display 0.001 ohm to 19.000 kohm
G range class	0.01 umho to 190.00 mmho
D range	0.0001 to 1.6000
Basic accuracy C class	0.1%
Basic accuracy L/R/G class	0.2%
Basic accuracy overall class	0.1% to 1.2%
Minimum resolution	0.1 nH; 0.001 pF; 1 mohm
Capacitance test voltages	20 mV and 500 mV rms
Inductance test currents	5 mA to 2 uA class
Reading rate class	5 or more readings per second
DC bias option	0 to 39.9 V in 0.1 V steps
Specifications	
PARAMETER	VALUE
Model	4271A
Manufacturer	HP / Agilent
Instrument Type	Digital LCR Meter
Alias	4271A; Agilent 4271A; HP 4271A
Test frequency: 1 MHzLrange class: 1000 nH to 1000 uH (overview); display 0.1 nH to 1900.0 uHCrange class: 10 pF to 10 nF (overview); display 0.001 pF to 19.000 nFRrange class: 10 ohm to 10 kohm (overview); display 0.001 ohm to 19.000 kohmGrange class: 0.01 umho to 190.00 mmhoDrange: 0.0001 to 1.6000	
Specifications	
PARAMETER	VALUE
Basic accuracyCclass	0.1%

PARAMETER	VALUE
Basic accuracy L/R/G class	0.2%
Basic accuracy overall class	0.1% to 1.2%
Minimum resolution	0.1 nH; 0.001 pF; 1 mohm
Capacitance test voltages	20 mV and 500 mV rms
Inductance test currents	5 mA to 2 uA class
Reading rate class	5 or more readings per second
DC bias option	0 to 39.9 V in 0.1 V steps

Notes
Specs from HP Journal March 1974 (4271A introduction) and product overviews. Confirm options and bias source on the unit.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 12, 2026

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