

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 4277A

High Speed Measurement Class: 70 ms class at 1 MHz (OEM operating-manual timing class)
CDMeasurement Time Class: 35 ms class at 1 MHz (OEM operating-manual timing class) Line Voltage: 100, 120/220 Vac plus or minus 10 percent, 240 Vac plus 5 minus 10 percent Numeric rows from HP 4277A LCZ Meter product literature and operating/service manual summaries (10 kHz-1 MHz, 701 spots, 0.1 percent, 4.5 digits, Option 001/002, mechanical). Confirm range-by-range L/C limits on the 4277A specification table; one reseller table mixed 4276A LF ranges and was not used. CDMeasurement Time Class: 35 ms class at 1 MHz (OEM operating-manual timing class) Line Voltage: 100, 120/220 Vac plus or minus 10 percent, 240 Vac plus 5 minus 10 percent Numeric rows from HP 4277A LCZ Meter product literature and operating/service manual summaries (10 kHz-1 MHz, 701 spots, 0.1 percent, 4.5 digits, Option 001/002, mechanical). Confirm range-by-range L/C limits on the 4277A specification table; one reseller table mixed 4276A LF ranges and was not used.



MODEL

**Agilent / Keysight
4277A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

4277A

LISTING

<https://aumictechlabs.com/products/4277a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 4277A is a precision LCZ meter for impedance characterization across 10 kHz to 1 MHz. It measures inductance, capacitance, impedance magnitude, dissipation factor, quality factor, equivalent series resistance, conductance, and phase angle with 0.1% basic accuracy and 4½-digit resolution. The instrument supports three measurement circuit modes

(AUTO, PARALLEL, SERIES) and offers selectable test signal levels at 1 Vrms or 20 mVrms. High-speed measurement capability delivers results in 40–75 ms depending on parameter and frequency. Optional DC bias (± 40 V maximum) enables component characterization under applied voltage. An integrated comparator function provides 10-bin sorting and GO/NO-GO testing for D/Q parameters in under 100 ms. HP-IB control enables full remote operation, data logging, and integration into automated test systems. The 4277A operates across 0° to 55° C and accepts 100/120/220/240 Vac power, making it suitable for bench use, production quality control, and component development environments.

Technical Specifications

Impedance Range: 10 Ω to 1 M Ω
Test Frequency: 10 kHz to 1 MHz (701 selectable spot frequencies)
Frequency Resolution: 100 Hz maximum; $\pm 0.01\%$ accuracy
Measurement Parameters: L, C, $|Z|$, D, Q, ESR, G, phase angle
Measurement Accuracy: 0.1% basic
Display Resolution: 4½-digit
Measurement Speed: SLOW/MED/FAST modes; 40–75 ms typical at 1 MHz
Test Signal Level: 1 Vrms (HIGH) or 20 mVrms (LOW)
DC Bias (optional): 0 to ± 40 V programmable
Comparator Function: 10-bin sorting, <100 ms measurement time
Power Requirements: 100/120/220 Vac $\pm 10\%$, 240 V (+5% to –10%), 48–66 Hz
Power Consumption: 75 VA maximum
Dimensions: 188 mm H $\times$ 426 mm W $\times$ 422 mm D
Weight: 8.5 kg
Operating Environment: 0° to 55° C; $\leq 95\%$ RH at 40° C

Key Features

- Three measurement circuit modes for series and parallel component analysis
- Dual-level signal capability for low-noise and standard measurements
- High-speed C measurement at 40 ms enables production throughput
- Optional programmable DC bias options (H03, H04, H07) for voltage-dependent characterization
- Integrated GO/NO-GO comparator with 10-bin component binning

Typical Applications

- Quality control and incoming component inspection
- Production sorting and binning
- Component development and characterization
- Research and failure analysis

Compatibility & Integration

- HP-IB remote control and data transfer
- Optional component handler interface for automated sorting
- Standalone or system-integrated operation

4277A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	LCZ meter
Series Family	HP 4276A/4277A LCZ
Test Frequency Range	10 kHz to 1 MHz
Frequency Setting	3-digit, 701 spots
Basic Accuracy	0.1 percent over 10 ohm to 1 MOhm (also stated 100 mOhm to 1 MOhm in some OEM blurbs)
Display Resolution	4.5 digits
Impedance Range	10 ohm to 1 MOhm
Parameters Measured	L, C, $ Z $, D, Q, ESR, G, phase, high-speed L, high-speedCOptional Dc Bias: 0 to plus or minus 40 V (Option 001)
Comparator Bins Option 0	10-bin sorting
Comparator Measurement Time	less than 100 ms
High Speed Measurement Class	70 ms class at 1 MHz (OEM operating-manual timing class)
CDMeasurement Time Class	35 ms class at 1 MHz (OEM operating-manual timing class)
Remote Interface	HP-IB standard
Line Voltage	100, 120/220 Vac plus or minus 10 percent, 240 Vac plus 5 minus 10 percent
Line Frequency	48 to 66 Hz
Weight	42 lb
Height	188 mm (7.4 in)
Width	426 mm (16.75 in)
Depth	422 mm (16.7 in)
Form Factor	benchtop LCZ meter

4277A Specifications

PARAMETER	VALUE
Agilent Keysight 4277A LCZ Meter 10 kHz to 1 MHz	Overview
Key Features	701 selectable test frequencies 10 kHz to 1 MHz
Technical Specifications	Instrument Type: LCZ meter

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
Comparator Bins Option 002	10-bin sorting
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C D Measurement Time Class	35 ms class at 1 MHz (OEM operating-manual timing class)
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Line Voltage	100, 120/220 Vac plus or minus 10 percent, 240 Vac plus 5 minus 10 percent
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Impedance Range	10 ohm to 1 MOhm
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Option 001: internal DC bias

Option 002: comparator

Form Factor: benchtop LCZ meter

Notes

Numeric rows from HP 4277A LCZ Meter product literature and operating/service manual summaries (10 kHz-1 MHz, 701 spots, 0.1 percent, 4.5 digits, Option 001/002, mechanical). Confirm range-by-range L/C limits on the 4277A specification table; one reseller table mixed 4276A LF ranges and was not used.

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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<https://aumictechlabs.com>

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.