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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 16380A Standard Air Capacitor Set (1pF to 1000pF)

HP / Agilent 16380A Standard Air Capacitor Set 1 pF to 1000 pF The HP/Agilent/Keysight 16380A is a four-terminal-pair standard air capacitor set used for performance tests and accuracy verification of LCR meters and impedance analyzers in the 1 pF to 1000 pF range. The set includes four precision air-dielectric capacitors: 1 pF (16381A), 10 pF (16382A), 100 pF (16383A), and 1000 pF (16384A). Direct BNC 4TP connection to instrument terminals is supported; adapters accommodate other terminal configurations. The HP/Agilent/Keysight 16380A is a four-terminal-pair standard air capacitor set used for performance tests and accuracy verification of LCR meters and impedance analyzers in the 1 pF to 1000 pF range. The set includes four precision air-dielectric capacitors: 1 pF (16381A), 10 pF (16382A), 100 pF (16383A), and 1000 pF (16384A). Direct BNC 4TP connection to instrument terminals is supported; adapters accommodate other terminal configurations.



MODEL

**HP / Agilent
16380A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

16380A

LISTING

<https://aumictechlabs.com/products/16380a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 16380A Standard Air Capacitor Set is a four-component precision calibration standard for verifying LCR meters and impedance analyzers. It comprises discrete air-dielectric capacitors spanning 1 pF to 1000 pF - covering 1 pF, 10 pF, 100 pF, and 1000 pF nominal values.

Each capacitor achieves $\pm 0.1\%$ nominal accuracy with $\pm 0.01\%$ calibration accuracy and exhibits exceptional long-term stability at less than 300 ppm/year. The dissipation factor remains below 0.0001, making these standards ideal for metrology labs, calibration departments, and manufacturing test environments requiring traceable, repeatable measurements.

Technical Specifications

- Capacitance Range: 1 pF to 1000 pF in four discrete values
- Nominal Accuracy: $\pm 0.1\%$ across all capacitors
- Calibration Accuracy: $\pm 0.01\%$
- Capacitance Stability: Less than 300 ppm/year
- Dissipation Factor: Less than 0.0001
- Voltage Rating: ± 40 V AC/DC; 500 V Dielectric: Air
- Connector: BNC
- Set Dimensions: 142(W) $\times$ 88(H) $\times$ 112(D) mm
- Set Weight: 8.0 kg with case

Key Features

- Four-terminal pair configuration for direct connection to compatible test instruments
- Adaptable to two-, three-, and five-terminal configurations using provided test leads and BNC adapters
- Minimal temperature sensitivity; operates reliably within $23^{\circ}\text{C} \pm 5^{\circ}\text{C}$ and $50\% \pm 20\%$ RH
- Frequency-independent performance documented at 1 kHz with deviations recorded above this threshold
- Individual capacitors sized proportionally to their nominal values for ergonomic laboratory use

Typical Applications

- Calibration and performance verification of four-terminal pair LCR meters
- Impedance analyzer validation and traceability
- Metrology and standards laboratory work
- Manufacturing test acceptance procedures

Compatibility & Integration

Direct four-terminal pair compatibility with Agilent/Keysight 4263B, 4268A, 4279A, 4284A, 4285A, 4288A, 4294A, E4980A, and E4981A. Also supports earlier HP models 4261A, 4262A, and 4271B. Recommended calibration interval: once annually.

Features & description

From manufacturer datasheet

Features

- Four precision air capacitors in one set

Applications

- Performance verification of 4TP LCR meters and impedance analyzers

16380A Characteristics / Specifications

PARAMETER	VALUE
Model	16380A
Manufacturer	Hewlett-Packard / Agilent / Keysight
Instrument Type	Standard Air Capacitor Set
Alias	HP 16380A; Agilent 16380A; Keysight 16380A
Capacitance values	1 pF, 10 pF, 100 pF, 1000 pF
Module 1 pF	16381A
Module 10 pF	16382A
Module 100 pF	16383A
Module 1000 pF	16384A
Terminal connector	4-terminal pair BNC
Dielectric type	air
Nominal accuracy	0.10%
Calibration accuracy	0.01%
Calibration stability	less than 50 ppm/year
Dissipation factor	less than 0.0001
Humidity sensitivity	air dielectric sensitive to RH
Applicable instruments	4263B, 4268A, 4278A, 4279A, 4284A, 4285A, 4288A, 4294A class
Also listed applicable	4192A, 4194A, 4263A class
Connection	direct to 4TP terminals or via adapters
Set purpose	LCR / impedance analyzer performance tests
Frequency use	per connected instrument performance-test procedures
Range covered	1 pF to 1000 pF Notes Specs from Keysight/Agilent 16380A product pages and accessory catalogs. Humidity affects air capacitors; allow stabilization after RH change. Confirm calibration report dates on the modules.
Humidity	sensitivity: air dielectric sensitive to RH

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.

performance tests and accuracy verification of LCR meters and impedance analyzers in the 1 pF to 1000 pF range. The set includes four precision air-dielectric capacitors: 1 pF (16381A), 10 pF (16382A), 100 pF (16383A), and 1000 pF (16384A). Direct BNC 4TP connection to instrument terminals is supported; adapters accommodate other terminal configurations.

Applications

- Performance verification of 4TP LCR meters and impedance analyzers
- Capacitance accuracy certification from 1 pF to 1000 pF
- Metrology and calibration laboratory reference capacitors
- Use with instruments such as 4263B, 4278A, 4284A, 4285A, 4294A class

Key Features

- Four precision air capacitors in one set
- Modules 16381A / 16382A / 16383A / 16384A
- 4-terminal-pair BNC connectors
- Nominal accuracy 0.10%; calibration accuracy 0.01%
- Dissipation factor less than 0.0001
- Calibration stability less than 50 ppm/year
- Direct connect to 4TP instrument terminals

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	16380A
Manufacturer	Hewlett-Packard / Agilent / Keysight
Instrument Type	Standard Air Capacitor Set

Specifications

PARAMETER	VALUE
Alias	HP 16380A; Agilent 16380A; Keysight 16380A
Capacitance values	1 pF, 10 pF, 100 pF, 1000 pF
Module 1 pF	16381A

Specifications

PARAMETER	VALUE
Module 10 pF	16382A
Module 100 pF	16383A
Module 1000 pF	16384A

Specifications

PARAMETER	VALUE
Terminal connector	4-terminal pair BNC
Dielectric type	air
Nominal accuracy	0.10%

Specifications

PARAMETER	VALUE
Calibration accuracy	0.01%
Calibration stability	less than 50 ppm/year
Dissipation factor	less than 0.0001

Specifications

PARAMETER	VALUE
Humidity sensitivity	air dielectric sensitive to RH
Applicable instruments	4263B, 4268A, 4278A, 4279A, 4284A, 4285A, 4288A, 4294A class
Also listed applicable	4192A, 4194A, 4263A class

Specifications

PARAMETER	VALUE
Connection	direct to 4TP terminals or via adapters
Set purpose	LCR / impedance analyzer performance tests
Frequency use	per connected instrument performance-test procedures

Range covered: 1 pF to 1000 pF

Notes

Specs from Keysight/Agilent 16380A product pages and accessory catalogs. Humidity affects air capacitors; allow stabilization after RH change. Confirm calibration report dates on the modules.

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
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<https://aumictechlabs.com>

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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.