

LCR & RESISTANCE METERS

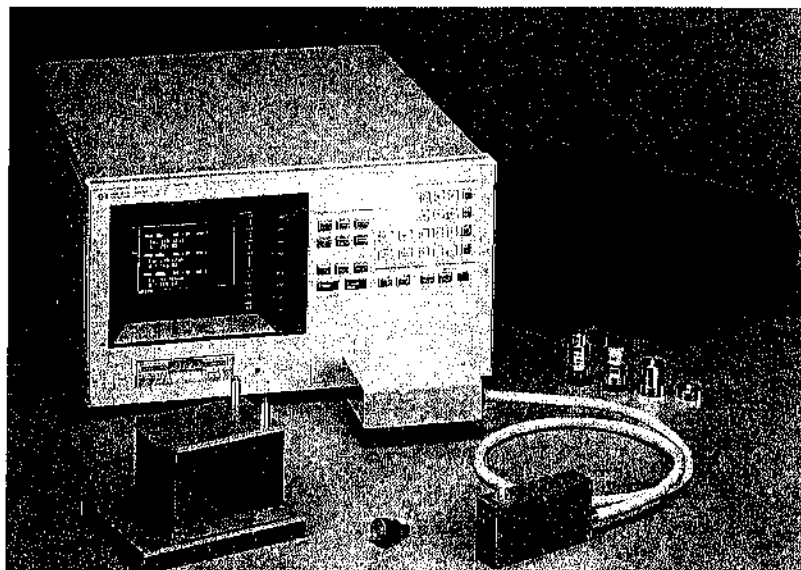
LCR Meter 1 MHz to 1 GHz

HP 4286A

353

1 MHz to 1 GHz, with 10 kHz steps
1% basic accuracy

- High speed measurements: 15 ms
- 1 m/3 m Error-less cable with APC-3.5 test head



HP 4286A RF LCR Meter

High Accuracy with Wide Impedance Range

The HP 4286A RF LCR meter offers accurate and reliable measurements in order to improve the quality and performance of your electronic components or circuit design. The HP 4286A employs direct current-voltage measurement technique, as opposed to the reflection measurement technique, for more accurate impedance measurement over wide impedance range. Also, Q measurement can be much improved due to advanced calibration technique (typical Q accuracy: 6% @ 100 MHz, Q=100). So you can reduce the design uncertainty by measuring your device's true impedance values at RF range.

Ease of Use

The HP 4286A can be easily operated by pressing the front panel keys. In addition, the HP 4286A with Option IC2 HP-IBASIC allows you to customize measurement, test sequences, process control, and perform data analysis. Also, a number of APC-7 SMD test fixtures are applicable to the HP 4286A with the furnished fixture stand and APC3.5-to-APC7 adapter. You don't need to build your own fixture.

Simplified System Integration and High Throughput

The HP 4286A is suitable for testing the electronic components in the production line at RF range. The 1 m/3 m option-selectable errorless cable with test head can be easily connected closely to the tip of device under test of the handler without accuracy decrease. The built-in comparator function, a high-speed HP-IB interface, and an optional handler interface, are available for easily combining with the handler. The HP 4286A also allows you to reduce test time and improve testing efficiency and reliability. The measurement speed is especially remarkable (approximately 15 ms).

Specifications (Refer to data sheet for complete specifications.)

Measurement Parameters: |Z|, |Y|, Theta, R, X, G, B, L, C, Q, D, ESR

Measurement Circuit Mode: Series and parallel

Operating Frequency: 1 MHz to 1 GHz

Frequency Resolution: 10 kHz

Source Characteristics:

OSC level: 10 mVrms to 1 Vrms

(Output terminal open)

10 mVrms to 0.5 Vrms @ 3 m test head, ≥ 500 MHz

Basic OSC level accuracy: 2dB @ $V \geq 0.25$ V

Display level unit: V, I, dBm

Level monitor function: Voltage, current

Connector: APC-3.5

Output Impedance (Nominal Value): 50 Ω

Trigger: Internal, external, manual, and HP-IB

Delay Time: Point delay time, list sweep delay time

Averaging: Point average, list sweep average

Basic Measurement Accuracy: |Z|: 1%, D: 0.01

Measurement Time: 15 ms

Interface: HP-IB, handler interface

Display: 7-inch B/W CRT display

Storage:

Type: Built-in 3.5-inch floppy disk drive
Backup SRAM disk memory

Disk format: LIF, DOS

Programming: HP Instrument BASIC (Opt IC2)

General Specifications

Operating temperature/humidity: 10 to 50° C/15% to 80% RH

Warm up time: 30 min.

Power requirements: 90 V to 132 V, or 198 V to 264 V, 47 Hz to 66 Hz, 500 VA max

Size/Weight:

Main frame: 426 mm W \times 234 mm H \times 537 mm D, 28 kg

Test head: 110 mm W \times 55 mm H \times 28 mm D, 0.3 kg

Key Literature

HP Precision LCR Meter Family Data Sheet, p/n 5963-5391E.

HP 4286A Specification Sheet, p/n 5963-5394E.

Ordering Information

HP 4286A RF LCR Meter

Furnished Accessories: right angle test head (1m), APC3.5-to-APC7 adapter, Test Fixture Stand, HP 16195A APC-7 Calibration Kit, Operation Manual, Floppy Disk, and Power Cable. (No test fixture is supplied with the HP 4286A.)

Options

Options	Price
Opt 021 Add Straight Angle Test Head (1 m)	\$2,600
Opt 022 Add Straight Angle Test Head (3 m)	\$2,600
Opt 031 Delete Right Angle Test Head (1 m)	-\$2,600
Opt 032 Add Right Angle Test Head (3 m)	\$2,600
Opt 001 Delete HP 16195A Cal Kit	-\$1,600
Opt 002 Delete Test Fixture Stand	-\$530
Opt 004 Add Working Standard Set	\$320
Opt IC2 Add HP-IBASIC, Keyboard, Cable	\$2,200

Accessories Available

HP 16190A Performance Test Kit	\$6,185
HP 16191A Side Electrode SMD Fixture	\$2,475
HP 16192A Parallel Electrode SMD Fixture	\$1,980
HP 16193A Small Side Electrode SMD Fixture	\$2,225
HP 16194A High Temperature Test Fixture	\$2,475
HP 16195A APC-7 Calibration Kit	\$1,680
HP 16092A Test Fixture (≤ 500 MHz)	\$755
HP 16093A Binding Post Fixture (≤ 250 MHz)	\$255
HP 16093B Binding Post Fixture (≤ 125 MHz)	\$285
HP 16094A Probe Test Fixture (≤ 125 MHz)	\$245

For the most current prices and product information, contact your local Hewlett-Packard sales office—see page 632.