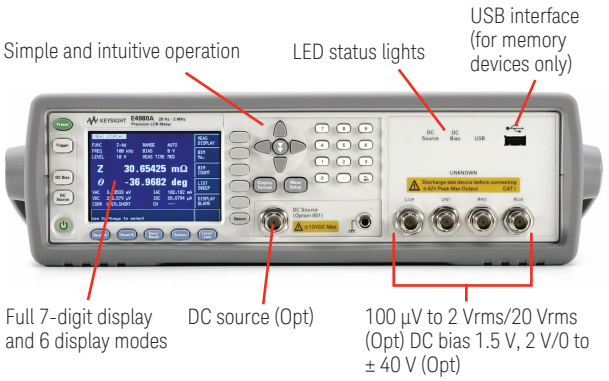
Product Fact Sheet

Keysight E4980A Precision LCR Meter 20 Hz to 2 MHz

An industry standard LCR meter

Keysight Technologies, Inc. E4980A precision LCR meter is an industry standard of high-end LCR meters which provides the best combination of accuracy, speed and versatility. Along with the widest variety of accessories, a broad range of component, semiconductor, and material measurement applications in general R&D and production environments can be addressed.

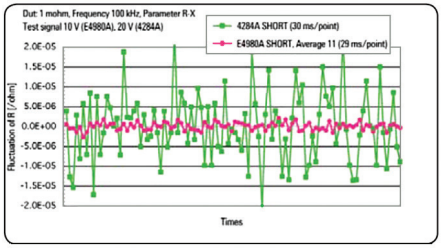


Key features

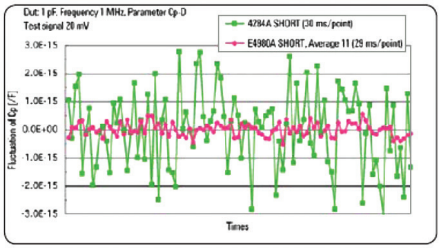
1. Accurate measurements

Exceptionally low noise at both low and high impedance to improve test quality

- 0.05% basic impedance accuracy
- Open/Short/Load compensation
- Test cable extension (1/2/4 m)



Measurement stability: E4980A vs. 4284A
Low impedance meas. 1 mΩ @100 kHz



High impedance meas. 1 pF @1 MHz

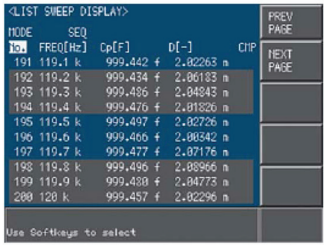
2. Fast measurement speed

Fast speed provides more throughput reducing cost of test

- 5.6 ms (SHORT), 88 ms (MED), 220 ms (LONG) @1 MHz

3. Measurement versatility

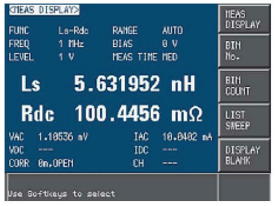
- 20 Hz to 2 MHz test frequency with 4-digit resolution
- 16 impedance parameters
- 100 uV to 2 Vrms, 1 uA to 20 mA variable test signal
- DC bias 1.5/2 V
- Auto-level control
- 201 points of programmable list sweep
- DC resistance (mandatory option)



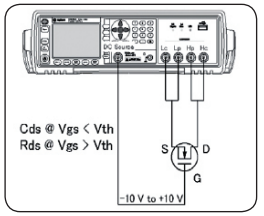
List sweep mode

4. Power and DC bias enhancement (Option 001)

- 0 to 20 Vrms/100 mArms test signal
- 0 to ± 40 V DC bias with 0.3 mV minimum resolution
- Second DC source controllable from 0 to ± 10 V
- DC bias current/voltage measurement capabilities



DCR measurement



Meas. using DC source

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Models

Model	Description
E4980A	Precision LCR Meter, 20 Hz to 2 MHz

Options

Model	Description
E4980A-001	Power and DC bias enhancement
E4980A-200	DCR measurement (mandatory option)
E4980A-201	Handler interface
E4980A-301	Scanner interface
E4980A-710	No interface
E4980A-ABA	English localization
E4980A-ABJ	Japanese localization
E4980A-1A7	ISO 17025 compliant calibration
E4980A-A6J	ANSI Z540 compliant calibration
E4980A-1CM	Rack mount kit

For more details on the option configuration, refer to the configuration guide 5989-8321EN.

Upgrade options

Refer to the configuration guide 5989-8321EN for the upgrades.

Materials Measurement

N1500A-006 Parallel Plate/Inductance Method Up to 120 MHz (Up to 2 MHz on E4980A)
N1500A-005 Parallel Plate/Inductance Method Up to 1 GHz (Up to 2 MHz on E4980A)

Application support literatures

Literature	Publication number
Impedance measurement handbook	5950-3000

Recommended accessories

DUT	Fixture type	Model	Description
Lead	Axial/radial	16047A/E	Spring contact type (A)/Screw-lock type (E)
	Clip-type	16089A/B/C/D/E (5 Hz to 100 kHz)	Large clips (A)/Medium clips (B)/IC clips (C)/ Alligator clips (D)/High repeatability (E)
SMD/ chip	SMD/chip	16034E/G/H	Large contact (E)/Small contact (G)/ For array components (H)
		16044A	Kelvin contacts
	Tweezers-type	16334A	Tweezers (cable length 1 m)
	Extension cable	16048A/D/E	BNC test leads (1/2/4 m)
	External DC bias	16065A	± 200 Vmax

For other accessories, refer to the configuration guide 5989-8321EN.

For additional literature and product information, refer to following literatures.

Literature	Part number
Brochure	5989-4235EN
Data sheet	5989-4435EN
Configuration guide	5989-8321EN

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