



## Agilent E4981A

# 120 Hz/1 kHz/1 MHz Capacitance Meter

## Configuration Guide



## Ordering Guide

The following steps will guide you through configuring your E4981A.

### Standard Furnished Item

Description	Additional Information
CD-ROM	Contains operation and programming manuals (in PDF) and sample program file. See documentation option for printed manuals
CD-ROM	Contains Agilent IO Libraries Suite (the latest version).
Power Cable	
Certificate of Calibration	

*Note: Test Fixture and printed copy of operation and programming manuals are not furnished.*

### Step 1. Select Frequency Option (Mandatory)

Description	Option No.	Requires	Additional Information
Frequency, 120 Hz / 1 kHz/ 1 MHz	E4981A-001	None	
Frequency, 120 Hz / 1 kHz	E4981A-002	None	

### Step 2. Choose General/Miscellaneous Accessory Option (If not required, go to Step 3)

Description	Option No.	Requires	Not Compatible	Additional Information
Rack mount Kit	E4981A-1CM	None		Recommended to order E4981A-600. The front handle, front and rear bumpers are not required when the rack mount kit is equipped.
Delete Front Handle Kit	E4981A-600	None		Delete front handle, front and rear bumpers. Recommended for manufacturing users who integrate the E4981A in the component handler system.

*Note: Handle/Rack Mount Kit is not available.*

### Step 3. Choose Documentation Option (If not required, go to Step 4)

Description	Option No.	Additional Information
U.S. - English Localization	E4981A-ABA	Printed operation and programming manuals are furnished.
Japan - Japanese Localization	E4981A-ABJ	

### Step 4. Choose Calibration Certificate Option

Description	Option No.	Additional Information
ISO 17025 Compliant Calibration	E4981A-1A7	ISO 17025 compliant calibration
ANSI Z540 Compliant Calibration	E4981A-A6J	ANSI Z540 compliant calibration

### Step 5. Choose Warranty Plan

1 year return-to-Agilent warranty and service plan is standard. For extended warranty options and additional information, contact your local Agilent sales office or visit the Agilent home website.

## Hardware Upgrade

Option No.	Description	Upgrade Model No. or Equivalent Part Number	Customer Installable	Requires (Instrument must already include the following)	Not Compatible
E4981A-1CM	Rack Mount Kit	5063-9241	Yes	None	None
E4981A-600	Delete Front Handle Kit	E4980-45001 (Front Handle) 34480-46001 (Front Bumper) 34480-46002 (Rear Bumper)	Yes	None	None

Note: For details of the upgrade information, refer to product homepage on the Agilent home website.

## Software Upgrade

Option No.	Description	Upgrade Model No. or Equivalent Part Number	Customer Installable	Requires (Instrument must already include the following)	Not Compatible	Additional Information
E4981A-001	Frequency, 120 Hz/1 kHz/1 MHz	E4981AU-001	No	E4981A-002	None	Installable at service center only

Note: For firmware update and upgrade information, refer to product homepage on the Agilent home website.

## Available Accessories - General Measurement Accessories

Description	Model Number	Requires (Instrument must already include the following)	Additional Information
SMD Test Fixture	16034E	None	For SMD; (0.1 to 8) L x (0.5 to 10) W x (0.5 to 10) H mm. Operation and Service Manual is furnished.
SMD Test Fixture	16034G	None	For SMD; (0.1 to 5) L x (0.3 to 1.6) W x (0.3 to 1.6) H mm. 100 Ω SMD resistors set is furnished.
	16034G-ABA	None	U.S. - English localization
	16034G-ABJ	None	Japan – Japanese localization
SMD Test Fixture	16034H	None	For Array-type SMD; (0.1 to 5) L x (≤ 15) W x (0.6 to 3) H mm. 100 Ω SMD resistors set and Operation Manual are furnished.
SMD Test Fixture	16044A	None	Kelvin contact test fixture for SMD; (1.6 to 8) L x (0.8 to 8) W x (0.8 to 3) H mm.
	16044A-ABA	None	U.S. - English localization
	16044A-ABJ	None	Japan - Japanese localization
Test Fixture	16047A	None	For axial or radial lead device. Operation and Service Manual is furnished.
	16047A-701	None	Adds shorting plate.
Test Fixture	16047E	None	For axial or radial lead device.
	16047E-ABA	None	U.S. - English localization
	16047E-ABJ	None	Japan – Japanese localization
Test Leads	16048A	None	BNC connector leads; 0.94 m. BNC connector bracket, Operation and Service Manual are furnished.

## Available Accessories - General Measurement Accessories *(cont'd)*

Description	Model Number	Requires (Instrument must already include the following)	Additional Information
Test Leads	16048D	None	BNC connector leads; 1.89 m. BNC connector bracket, Operation and Service Manual are furnished.
Test Leads	16048E	None	BNC connector leads; 3.8 m. BNC connector bracket, Operation and Service Manual are furnished.
Test Leads	16048-60030	None	Equivalent to previous 16048B. BNC – SMC connector leads; 0.94 m.
	16033-60001	None	SMC connector bracket for 16048-60030 test leads.
Tweezers Test Fixture	16334A	None	For SMD; ≤ 10 mm L. Tweezers type; cable length 1 m. Shorting block, Operation and Service Manual are furnished.
Kelvin Clip Leads	16089A	None	2 large clips. Choose mandatory option 800 or C20. Operation and Service Manual is furnished.
	16089A-800	None	Cable length: 1 m (standard)
	16089A-C20	None	Cable length: 2 m
Kelvin Clip Leads	16089B	None	2 medium clips. Choose mandatory option 800 or C20. Operation and Service Manual is furnished.
	16089B-800	None	Cable length: 1 m (standard)
	16089B-C20	None	Cable length: 2 m
Kelvin IC Clip Leads	16089C	None	2 IC clips; cable length 1 m. Operation and Service Manual is furnished.
Alligator Clip Leads	16089D	None	4 medium clips; cable length 1 m. Operation and Service Manual is furnished.
Kelvin Clip Leads	16089E	None	2 large clips; cable length 1 m. Operation Note is furnished.
4-Terminal to 7 mm Coaxial Adapter	16085B	None	Terminal converter for using RF component test fixture such as the 16092A, 16192A, 16194A, 16196A/B/C/D and 16197A. Operation Note is furnished.
Dielectric Test Fixture	16451B	None	Test fixture for measuring permittivity of dry solid sheet material; Cable length 1 m. 38 mm and 5 mm diameter electrodes for measuring bare material and two types of electrodes for measuring material with pre-formed electrodes are furnished.
	16451B-ABA	None	U.S. - English localization
	16451B-ABJ	None	Japan - Japanese localization
3-Terminal SMD Test Fixture	16043-60011	None	Equivalent to previous 16043A. For related options and accessories, see Note below this table.
3-Terminal SMD Test Fixture	16043-60012	None	Equivalent to previous 16043B. For related options and accessories, see Note below this table.
Balanced/Unbalanced 4-Terminal Converter	16314-60011	None	Equivalent to previous 16314A; Unbalanced 50 Ω to balanced 50 Ω converter for measuring balanced device or circuit. Shorting bar and 50 Ω resistor for Short/Load compensation, Operation and Service Manual are furnished.

*Note: For more detailed information, refer to Accessories Selection Guide for Impedance Measurements.*

## Available Accessories - External DC Bias Accessories

Description	Model Number	Requires (Instrument must already include the following)	Additional Information
External Voltage Bias Fixture	16065A	None	±200 V dc max., for axial or radial lead device. Shorting plate, Operation and Service Manual are furnished.
External Bias Adapter	16065C	None	External DC bias adapter; ±40 V dc max, 100 Hz to 1 MHz. Compatible with all the test fixtures, test leads and clip leads except for the 16060A. Operation and Service Manual is furnished.

Note: For more detailed information, refer to Accessories Selection Guide for Impedance Measurements

## Available Accessories – for Calibration and Maintenance

Description	Model Number	Requires (Instrument must already include the following)	Additional Information
Open Termination	42090A	None	4-terminal pair Open termination. Needed for performing calibration.
Short Termination	42091A	None	4-terminal pair Short termination. Needed for performing calibration.
4-Terminal Pair Standard Capacitor Set	16380A	None	1 pF, 10 pF, 100 pF and 1000 pF standard capacitor set with carrying case. Calibration report and Operation Note are furnished.
4-Terminal Pair Standard Capacitor Set	16380C	None	0.01 μF, 0.1 μF and 1 μF standard capacitor set with carrying case. Calibration report and Operation Note are furnished.
	16380C-001	None	Adds 10 μF standard capacitor.
4-Terminal Pair Standard Resistor Set	42030A	None	9 standard resistors from 1 mΩ to 100 kΩ in decade steps; carrying case, calibration report, Operation and Service Manual are furnished.

Note: For more detailed information, refer to Accessories Selection Guide for Impedance Measurements

## Literature Resource

Title	Publication Number
<i>E4981A Data Sheet</i>	5989-8963EN
<i>E4981A Brochure</i>	5989-8964EN
<i>LCR Meters, Impedance Analyzers and Test Fixtures Selection Guide</i>	5952-1430E
<i>Accessories Selection Guide For Impedance Measurements</i>	5965-4792E
<i>Impedance Measurement Handbook</i>	5950-3000

Note: More literature is available on the Agilent home website.

## Web Resource

Have Access to the following website to acquire the latest news, product and support information, application literature and more.

[www.agilent.com/find/e4981a](http://www.agilent.com/find/e4981a)

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