

# Keysight Technologies E4981A Capacitance Meter

## Configuration Guide



## Ordering Guide

The following steps will guide you through configuring your Keysight Technologies, Inc. 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 Keysight 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

## 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 Keysight 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 Keysight 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.
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 (continued)

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.
Tweezers Test Fixture	16334A	None	For SMD; $\leq 10$ 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.
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

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	$\pm 200$ 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; $\pm 40$ 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 A

## 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 $\mu$ F, 0.1 $\mu$ F and 1 $\mu$ F standard capacitor set with carrying case. Calibration report and Operation Note are furnished.
	16380C-001	None	Adds 10 $\mu$ F standard capacitor.
4-Terminal Pair Standard Resistor Set	42030A	None	9 standard resistors from 1 m $\Omega$ to 100 k $\Omega$ 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
E4981A Data Sheet	5989-8963EN
E4981A Brochure	5989-8964EN
LCR Meters, Impedance Analyzers and Test Fixtures Selection Guide	5952-1430E
Accessories Selection Guide For Impedance Measurements	5965-4792E
Impedance Measurement Handbook	5950-3000

1. Note: More literature is available on the Keysight home website.

## Web Resource

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

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

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