

Product Datasheet - Technical Specifications



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E4981B Capacitance Meter



Ordering Guide

The following steps will guide you through configuring your Keysight Technologies, Inc. E4981B.

Standard furnished item

Description	Additional information
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	E4981B-001	None	
Frequency, 120 Hz / 1 kHz	E4981B-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	E4981B-1CM	None		Recommended to order E4981B-600. The front handle, front and rear bumpers are not required when the rack mount kit is equipped.
Delete front	E4981B-600	None		Delete front handle, front and rear bumpers.

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	E4981B-ABA	Printed operation and programming manuals are furnished.

Step 4. Choose calibration certificate option

Description	Option no.	Additional information
ISO 17025 compliant calibration	E4981B-1A7	Calibration + Uncertainties + Guardbanding (Not accredited)

Hardware upgrade

Option no.	Description	Upgrade model No. or equivalent part number	Customer installable	Requires (instrument must already include the following)	Not compatible
E4981B-1CM	Rack mount kit	1CM119A	Yes	None	None
E4981B-600	Delete front handle	E4980-45051 (front handle) E4980-40006 (front bumper) E4980-40007 (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
E4981B-001	Frequency, 120 Hz / 1 kHz / 1 MHz	E4981BU-001	No	E4981B-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	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
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
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
	16047E	None	For axial or radial lead device
	16047E-ABA	None	U.S. - English localization
Test leads	16048A	None	BNC connector leads; 0.94 m. BNC connector bracket, operation and service manual are furnished.
	16048D	None	BNC connector leads; 1.89 m. BNC connector bracket, operation and service manual are furnished.
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
	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

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.
	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
E4981A Capacitance Meter - Data Sheet	3123-1331.EN
LCR Meters, Impedance Analyzers and Test Fixtures - Selection Guide	5952-1430E
Accessories Catalog for Impedance Measurements - Catalog	5965-4792E
Impedance Measurement Handbook – Application Note	5950-3000

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