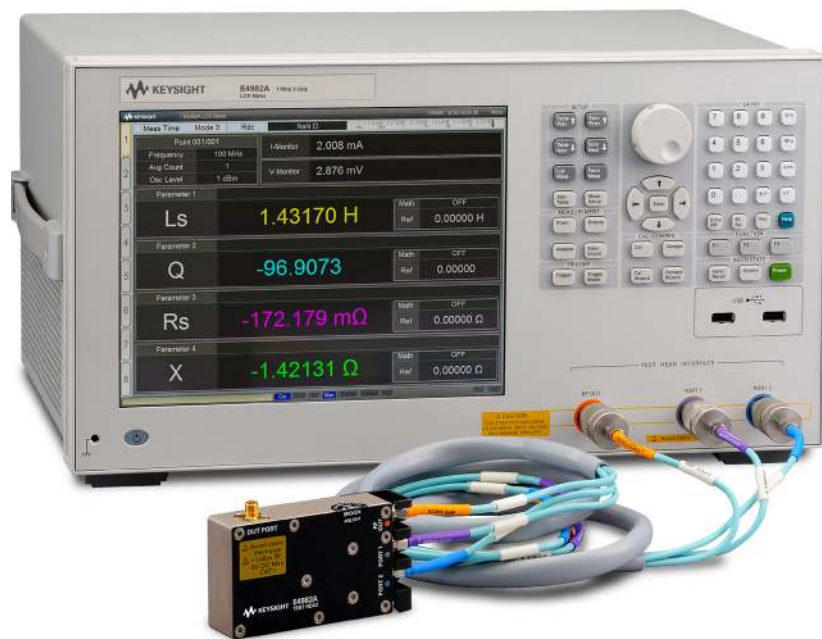


Keysight Technologies

E4982A LCR Meter

1 MHz to 300 MHz/500 MHz/1 GHz/3 GHz

Configuration Guide



Ordering guide

The following steps will guide you through configuring your E4982A.

Standard furnished item	
Description	Additional information
Test head with 1m test cable	See Accessory option for cable extension
Installation Guide	
I/O Library CD-Rom	
Power Cable	
Certification of Calibration	

Note: The following are not furnished: Calibration kit, Test Fixture Stand, 3.5 mm-to-7 mm Adapter, Keyboard and Mouse. Refer to Accessory Option and Available Accessories for the selection of these items.

Step 1. Choose Frequency Option (Mandatory)				
Description	Option No.	Requires	Not Compatible	Additional Information
1 MHz – 300 MHz	E4982A-030			
1 MHz – 500 MHz	E4982A-050			
1 MHz - 1 GHz	E4982A-100			
1 MHz - 3 GHz	E4982A-300			

Step 2. Choose accessory option for integrating into component handler system (If not required, go to Step 3.)				
Description	Option No.	Requires	Not Compatible	Additional Information
Working standard set	E4982A-004	None	None	Required when performing calibration at DUT contacts of component handler or test fixture. Includes Shorting Bars and 51.0 Ω Chip Resistors (SMD size: 1.0 x 0.5 mm, 1.6 x 0.8 mm, 2.0 x 1.2 mm, 3.2 x 1.6 mm)
Test head extension cable set	E4982A-020	None	None	Coaxial cable set for extending the test head cable to 2 m from standard 1 m. Required when 2 m test head cables are needed for installation.
16195B calibration kit	E4982A-700	E4982A-710, -720	None	Recommended for system calibration and tests. Usable for multiple E4982As. Required to perform calibration at 7 mm connector plane of 3.5 mm-to-7 mm adapter attached to 3.5 mm test port connector on test head. Includes OPEN, SHORT, 50 Ω LOAD, LOW-LOSS CAPACITOR standards and carrying case.

Note: Refer to Upgrade for retrofit information on the above options.

Step 3. Choose accessory option for using test fixture (if not required, go to Step 4.)				
Description	Option No.	Requires	Not Compatible	Additional Information
Working standard set	E4982A-004	None	None	Needed when performing calibration at DUT contacts of custom fixture or component handler. (Not required when using the Keysight Technologies, Inc. RF component test fixtures). Includes Shorting Bars and 51.0 Ω Chip Resistors (SMD size: 1.0 x 0.5 mm, 1.6 x 0.8 mm, 2.0 x 1.2 mm, 3.2 x 1.6 mm).
Test head extension cable set	E4982A-020	None	None	Coaxial cable set for extending the test head cable to 2 m from standard 1 m. Required when 2 m test head cables are needed for installation.
16195B calibration kit	E4982A-700	E4982A-710, -720	None	Required for performing calibration at 7 mm connector plane of 3.5 mm-to-7 mm adapter attached to 3.5 mm test port connector on test head. Includes OPEN, SHORT, 50 Ω LOAD, LOW-LOSS CAPACITOR standards and carrying case. Usable for multiple E4982As.
Test fixture stand	E4982A-710	E4982A-700, -720	None	Required for using Keysight's RF component test fixtures and the 16195B calibration kit. See Available Accessories in this guide.
3.5 mm-to-7 mm coaxial adapter	E4982A-720	E4982A-700, -710	None	Required for using Keysight's RF component test fixtures and the 16195B calibration kit. See Available Accessories in this guide.

Note: Refer to Upgrade for retrofit information on the above options.

Step 4. Choose general/miscellaneous accessory option (If not required, go to Step 5.)				
Description	Option No.	Requires	Not Compatible	Additional Information
Keyboard	E4982A-810	None	None	USB Keyboard for simplifying measurement setup and programming.
Mouse	E4982A-820	None	None	USB Mouse for simplifying measurement setup and programming.
Rackmount kit	E4982A-1CM	None	None	Not installable simultaneously with E4982A-1CP.
Front handle kit	E4982A-1CN	None	None	Not installable simultaneously with E4982A-1CP.
Handle/rack mount kit	E4982A-1CP	None	None	Not installable simultaneously with E4982A-1CM or 1CN.

Note: Refer to Upgrade for retrofit information on the above options.

Step 5. Choose data storage				
Description	Product No.	Requires	Not Compatible	Additional Information
Standard data storage	E4982A-019	None	None	Option 019 is the only data storage option for the E4982A. Must choose this option.

Step 6. Choose calibration certificate option		
Description	Option No.	Additional Information
ISO 17025 compliant calibration	E4982A-1A7	ISO 17025 compliant calibration
ANSI Z540 compliant calibration	E4982A-A6J	ANSI Z540 compliant calibration

Hardware Upgrades

Option No.	Description	Upgrade Model No. or Equivalent Part Number	Customer Installable	Requires (Instrument must already include the following)	Not Compatible	Additional Information
E4982A-004	Working standard set	E4982AU-004	Yes	None	None	
E4982A-020	Test fixture extension cable set	E4982AU-020	No	None	None	
E4982A-100	Upgrade from 500 MHz to 1 GHz	E4982AU-101	No	E4982A-050		Installable at service centre only
E4982A-100	Upgrade from 300 MHz to 1 GHz	E4982AU-100	No	E4982A-030		
E4982A-300	Upgrade from 1 GHz to 3 GHz	E4982AU-302	No	E4982A-100		
E4982A-300	Upgrade from 500 MHz to 3 GHz	E4982AU-301	No	E4982A-050		
E4982A-300	Upgrade from 300 MHz to 3 GHz	E4982AU-300	No	E4982A-030		
E4982A-050	Upgrade from 300 MHz to 500 MHz	E4982AU-050	No	E4982A-030		
E4982A-700	16195 calibration kit	16195B	Yes	E4982A-710, -720	None	
E4982A-710	Test fixture stand	04287-60121	Yes	E4982A-720	None	
E4982A-720	3.5 mm-to-7 mm adapter	1250-1746	Yes	None	None	
E4982A-810	Keyboard	5188-4463	Yes	None	None	
E4982A-820	Mouse	1150-7799	Yes	None	None	
E4982A-1CM	Rackmount kit	5063-9216	Yes	None	None	
E4982A-1CN	Front handle kit	5063-9229	Yes	None	None	
E4982A-1CP	Handle/rack mount kit	5188-4430	Yes	None	None	
N/A	Upgrade OS, from Windows XP to 7, for E4982A	E4980AU-040	No	Windows XP		

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

Available Accessories – Measurement Accessories

Description	Model No.	Requires (Instrument must already include the following)	Additional Information
Parallel electrode SMD test fixture	16196A	E4982A-700, -710, -720	For 1608 (mm)/0603 (inch) SMD up to 3 GHz
	16196A-710	–	Add magnifying lens and tweezers
	16196A-ABA	–	U.S. – English localization
	16196A-ABJ	–	Japan – Japanese localization
Parallel electrode SMD test fixture	16196B	E4982A-700, -710, -720	For 1005 (mm)/0402 (inch) SMD up to 3 GHz
	16196B-710	–	Add magnifying lens and tweezers
	16196B-ABA	–	U.S. – English localization
	16196B-ABJ	–	Japan – Japanese localization
Parallel electrode SMD test fixture	16196C	E4982A-700, -710, -720	For 0603 (mm)/0201 (inch) SMD up to 3 GHz
	16196C-710	–	Add magnifying lens and tweezers
	16196C-ABA	–	U.S. – English localization
	16196C-ABJ	–	Japan – Japanese localization
Parallel electrode SMD test fixture	16196D	E4982A-700, -710, -720	For 0402 (mm)/01005 (inch) SMD up to 3 GHz
	16196D-710	–	Add magnifying lens and tweezers
	16196D-ABA	–	U.S. – English localization
	16196D-ABJ	–	Japan – Japanese localization
High temperature test fixture	16194A	E4982A-700, -710, -720	For SMD and leaded device up to 2 GHz, Temperature range: –55 °C to +200 °C. 50 Ω working standard resistors, wrench, tweezers and, Operation and Service Manual are furnished.
	16194A-010	–	Add EIA, EIAJ size shorting bar set
	16194A-701	–	Add Shorting bar set; (1 x 1 x 2.4, 1.6 x 2.4 x 2, 3.2 x 2.4 x 2.4, 4.5 x 2.4 x 2.4) mm
Bottom electrode SMD test fixture	16197A	E4982A-700, -710, -720	For SMD from 1005 (mm)/0402 (inch) to 3225 (mm)/1210 (inch); up to 3 GHz. Device guides, EIA/EIAJ size shorting bar set, tweezers, wrench, magnifying lens, carrying case and, Operation and Service Manual are furnished.
	16197A-001	–	Add 0603 (mm)/0201 (inch) device guide
	16197A-ABA	–	U.S. – English localization
	16197A-ABJ	–	Japan – Japanese localization
SMD test fixture	16092A	E4982A-700, -710, -720	For SMD and leaded device up to 500 MHz. Operation note is furnished.
Parallel electrode SMD test fixture	16192A	E4982A-700, -710, -720	For SMD up to 2 GHz. Operation and Service Manual is furnished.
	16192A-010	–	Add EIA/EIAJ size shorting bar set.
	16192A-701	–	Add Shorting bar set; (1 x 1 x 2.4, 1.6 x 2.4 x 2, 3.2 x 2.4 x 2.4, 4.5 x 2.4 x 2.4) mm
	16192A-710	–	Add magnifying lens and tweezers
DC bias adapter	16200B	E4982A-700, -710, -720	External DC bias adapter; 5 A max. or 40 V max., 1 MHz to 1 GHz. Operation and Service Manual is furnished.
	16200B-001	–	Add shorting bars and 51 Ω working standard resistors set: from 0603 (mm) /0201 (inch) to 3216 (mm)/1206 (inch)

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

Available Accessories – for Performance Test and Maintenance

Description	Model No.	Requires (Instrument must already include the following)	Additional Information
Performance Test Kit	16190B	–	7 mm performance test kit; includes Open, Short, 50 Ω Load, Air-line, calibration data, wrench and carrying case.

Note: For details of the performance test kit, refer to product homepage on the Keysight home website.

Literature Resources

Literature number	Description
5990-9882EN	E4982A Data Sheet
5990-9911EN	E4982A Brochure
5952-1430E	LCR Meters, Impedance Analyzers and Test Fixtures Selection Guide
5965-4792E	Accessories Selection Guide For Impedance Measurements
5950-3000	Impedance Measurement Handbook

More literature is available on our web site

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