

KEYSIGHT TECHNOLOGIES (AGILENT HP)

E4981A

The Keysight E4981A is a high-speed capacitance meter designed for ceramic capacitor testing in production lines. It provides fast and highly accurate measurements across multiple test frequencies, ensuring robust production throughput and exceptional testing reliability.

SPECIFICATIONS

General

Interfaces	GPIB, LAN, USB-TMC, Handler, Scanner
Measurement Terminal Configuration	Four-terminal pair configuration
Recommended Calibration Interval	1 year

Physical

Operating Temperature	0 °C to 45 °C °C
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Measurement Parameters & Functions

Primary Measurement Parameters	Cp (parallel capacitance), Cs (series capacitance)
Secondary Measurement Parameters	D (dissipation factor), Q (quality factor), Rp (parallel resistance), Rs (series resistance), G (conductance)
Equivalent Circuit Modes	Parallel, Series
Ranging Modes	Auto, Hold
Deviation Measurement	Δ (absolute value), $\Delta\%$ (percent)

Test Signal

Test Frequencies	120 Hz, 1 kHz, 1 MHz
Test Frequency Options	Option 001 (120 Hz / 1 kHz / 1 MHz), Option 002 (120 Hz / 1 kHz)

Measurement Accuracy & Range

Basic Capacitance Accuracy	$\pm 0.07\%$
Basic Dissipation Factor (D) Accuracy	± 0.0005

Measurement Speed & Timing

Measurement Time (1 MHz, Fast)	2.3 ms
Measurement Time (1 kHz, Fast)	3.0 ms
Measurement Time (120 Hz, Fast)	11.0 ms
Trigger Source	Internal, Manual, External, Bus
Averaging Factor	1 to 256

Calibration & Compensation

Open Correction	Supported
Short Correction	Supported
Load Correction	Supported

Comparator & Limit Functions

Bin Sorting	9 bins for primary parameter, out-of-bin, and secondary parameter high/low
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Interfaces & Connectivity

GPIB Interface	Yes
LAN Interface	10/100 Base-T
USB Device Port	USB-TMC (Type-B)
USB Host Port	USB (Type-A) for external storage

Measurement Setup

Measurement Parameter Combinations	Cp-D, Cp-Q, Cp-Rp, Cp-G, Cs-D, Cs-Q, Cs-Rs
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System & Connectivity

LXI Compliance	LXI Class C
Command Emulation Modes	Agilent 4268A, Agilent 4288A

TECHNOLOGY

LCR / Capacitance Meter

APPLICATIONS

High-speed ceramic capacitor production testing

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.