

KEYSIGHT TECHNOLOGIES (AGILENT HP)

4285A

The Agilent / Keysight 4285A is a high-precision LCR meter designed for demanding component and material measurements in the RF range. It offers a test frequency range from 75 kHz to 30 MHz with a basic accuracy of 0.1%, making it suitable for research and development, production, quality assurance, and incoming inspection.

SPECIFICATIONS

General

Interfaces	GPIO
Display	LCD dot-matrix display
Warm-Up Time	30 minutes
Setup Memory	10 instrument states in internal EEPROM (expandable via memory card)

Physical

Power Supply	100 / 120 / 220 / 240 V $\pm$ 10%, 47 - 66 Hz
Operating Temperature	0 to 55 °C
Dimensions (W×H×D)	426 × 177 × 498 mm mm

Measurement Functions

Measurement Parameters	Z , Y , L, C, R, G, D, Q, Rs (ESR), Rp, X, B, θ
Equivalent Circuit Modes	Series, Parallel
Deviation Measurement	Δ (Absolute Deviation), $\Delta\%$ (Percent Deviation)

Test Signal Characteristics

Test Frequency Range	75 kHz to 30 MHz
Frequency Resolution	100 Hz steps
Test Signal Voltage Range (Vrms)	5 mVrms to 2 Vrms
Test Signal Control	Constant V or Constant I

Measurement Accuracy & Performance

Basic Impedance Accuracy	0.1%
Measurement Time (Fast)	30 ms
Measurement Time (Medium)	65 ms
Measurement Time (Slow)	200 ms
Averaging Factor	1 to 256
Error Correction	Open, Short, Load

Trigger & Measurement Control

Measurement Terminal Configuration	4-Terminal Pair (BNC)
Trigger Sources	Internal, External, Manual, Bus (GPIB)
List Sweep Function	10 points (Frequency, Test Signal Level, or DC Bias)
Comparator Functions (Bin Sorting)	10 bins

Options & Accessories

Internal DC Bias	Up to ±40 V (with Option 001)
High Current DC Bias	Up to 10 Adc (requires Agilent 42841A)
Handler Interface	Available (Option 201)
Scanner Interface	Available (Option 301)

Measurement Ranges

Display Range (Z, R, X)	0.01 mΩ to 99.9999 MΩ
Display Range (Y, G, B)	0.01 nS to 99.9999 S
Display Range (C)	0.01 fF to 999.999 μF
Display Range (L)	0.001 nH to 99.9999 H
Display Range (D)	0.000001 to 9.99999
Display Range (Q)	0.01 to 99999.9
Display Range (θ)	-180.000° to +180.000°

Power

Power Consumption	200 VA max
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Test Signal

Test Frequency Accuracy	±0.01%
Test Signal Voltage Resolution	1 mVrms
Automatic Level Control (ALC)	Constant Voltage (CV) and Constant Current (CC) modes

TECHNOLOGY

LCR Meter

APPLICATIONS

RF component testing, material measurement, research and development, quality assurance, 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.