

KEYSIGHT TECHNOLOGIES (AGILENT HP)

42941A

The Keysight 42941A is an impedance probe kit designed for use with the 4294A Precision Impedance Analyzer (and compatible models like the E4990A). It enables highly accurate in-circuit impedance measurements over a wide frequency range from 40 Hz to 110 MHz, providing a convenient probe-style interface for component and circuit testing.

SPECIFICATIONS

General

Interfaces	4-Terminal Pair (instrument interface via adapter)
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Physical

Power Supply	Powered by host instrument
Operating Temperature	0 °C to +55 °C °C
Dimensions (W×H×D)	Adapter: 190 (W) x 55 (H) x 160 (D) mm; Probe: 18 (D) x 154 (L) mm mm
Weight	1.3 kg kg

Measurement & Electrical Performance

Frequency Range	40 Hz to 110 MHz
Basic Measurement Accuracy	±0.8% (system accuracy when used with 4294A)
Maximum DC Bias Voltage	±42 V peak max (AC + DC)
Equivalent Electrical Length	1.5 m

Instrument Compatibility & Interface

Compatible Instrument Models	Keysight / Agilent 4294A, E4990A (with Option 120)
Instrument Connection Type	4-Terminal Pair (via supplied dedicated adapter)
DUT Connection Type	Pin probe, alligator clip, or ground lead

Calibration & Compensation

Supported Calibration Methods	Open, Short, and Load Calibration
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Physical & Mechanical

Cable Length	1.5 m
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Environmental & Safety

Storage Temperature Range	-20 °C to +60 °C
Operating Humidity	20% to 80% RH (non-condensing)
Storage Humidity	10% to 90% RH (non-condensing)

Accessories & Ordering Options

Furnished Accessories	Probe adapter, Pin probe, Ground lead, Alligator clip, Carrying case
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TECHNOLOGY

Impedance Measurement

APPLICATIONS

In-circuit impedance analysis and component 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.