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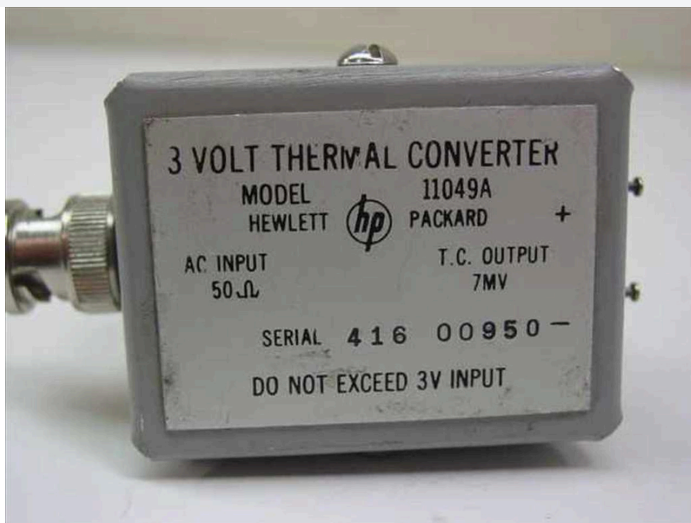
Data Sheet

August 6, 2026

KEYSIGHT / AGILENT

Keysight (Agilent) 11050A Thermal Converter

Keysight (Agilent) 11050A Thermal Converter The HP/Agilent/Keysight 11050A is a thermal converter accessory used as a true-RMS AC transfer / indicator element for accurate AC voltage measurements. Typical published characteristics include 50 Ω input impedance and about 1 Vrms maximum input, with a flat frequency response on the order of 5 Hz to 10 MHz. Confirm exact transfer EMF and calibration constants from the unit certificate and operating note. AC-DC transfer; true-RMS AC voltage metrology; calibration of AC sources and voltmeters. The HP/Agilent/Keysight 11050A is a thermal converter accessory used as a true-RMS AC transfer / indicator element for accurate AC voltage measurements. Typical published characteristics include 50 Ω input impedance and about 1 Vrms maximum input, with a flat frequency response on the order of 5 Hz to 10 MHz. Confirm exact transfer EMF and calibration constants from the unit certificate and operating note. AC-DC transfer; true-RMS AC voltage metrology; calibration of AC sources and voltmeters.



MODEL

**Keysight / Agilent
11050A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

11050A

LISTING

<https://aumictechlabs.com/products/11050a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight 11050A Thermal Converter is a precision AC-to-DC converter designed as a primary standard for AC-DC transfer measurements in calibration laboratories and metrology applications. It converts AC input signals into a proportional DC voltage representing the RMS value of the input, delivering nominal 7.5 mV output at full scale. The instrument provides exceptionally flat

frequency response from 5 Hz to 10 MHz and extends to 100 MHz with calibration options.

Technical Specifications

Frequency Response & Accuracy

Frequency Range	Accuracy	Reference to Standard
5 Hz to 20 Hz	$\pm 0.05\%$	$\pm 0.12\%$
20 Hz to 20 kHz	$\pm 0.01\%$	$\pm 0.02\%$
20 kHz to 50 kHz	$\pm 0.01\%$	$\pm 0.03\%$
50 kHz to 1 MHz	$\pm 0.01\%$	$\pm 0.06\%$
1 MHz to 10 MHz	$\pm 0.05\%$	$\pm 0.12\%$
10 MHz to 30 MHz	$\pm 0.25\%$	
30 MHz to 60 MHz	$\pm 0.50\%$	
60 MHz to 100 MHz	$\pm 1.50\%$	

Electrical Parameters

Parameter	Value
Maximum input voltage	1 V RMS
Input impedance	$50\ \Omega \pm 0.15\ \Omega$ (to 10 MHz)
Output impedance	$< 10\ \Omega$
Output voltage (full scale)	7.5 mV nominal

Calibration Options

Option 01: Calibration to 60 MHz with correctional data 5 Hz to 60 MHz

Option 02: Calibration to 100 MHz with correctional data 5 Hz to 100 MHz

Key Features

- Essentially flat response from 5 Hz to 10 MHz ensures minimal distortion across the audio and RF spectrum.
- Extended frequency operation to 100 MHz (with appropriate calibration option) accommodates modern signal analysis requirements.
- Low output impedance allows direct connection to precision measurement instruments without loading effects.

Typical Applications

- AC-DC transfer calibration standards
- Primary reference for precision AC voltmeters
- Frequency response verification for oscilloscopes and amplifiers
- Metrology-grade AC voltage measurement

Compatibility & Integration

The 11050A integrates with precision AC voltmeters, oscilloscopes, and amplifiers for response verification. Part of the 11049A/11050A/11051A thermal converter series. This model is discontinued; archived documentation available from 1984.

Features & description

From manufacturer datasheet

Features

- Thermal converter (true-RMS sensing element) • Input impedance: 50 Ω nominal class • Max input: ~1 Vrms class (confirm label) • Frequency response: approximately 5 Hz to 10 MHz (published class) • Used with appropriate DC null / transfer instrumentation

11050A Characteristics / Specifications

PARAMETER	VALUE
Model	11050A
Manufacturer	Keysight Technologies (Agilent / HP)
Instrument Type	Thermal Converter
Alias	11050A; HP 11050A; Agilent 11050A RF / AC 50 Ω input; ~1 Vrms max; ~5 Hz–10 MHz flatness class Operational Notes Prefer original HP 11050A operating/service literature and calibration certificate. Do not invent transfer EMF tables.
Input impedance	50 Ω nominal class
Max input	~1 Vrms class (confirm label)
Frequency response	approximately 5 Hz to 10 MHz (published class)

11050A Specifications

PARAMETER	VALUE
Keysight (Agilent) 11050A Thermal Converter	Overview
Technical Specifications	Model: 11050A
RF / AC	50 Ω input; ~1 Vrms max; ~5 Hz–10 MHz flatness class
Operational Notes	Prefer original HP 11050A operating/service literature and calibration certificate. Do not invent transfer EMF tables.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

characteristics include 50 Ω input impedance and about 1 Vrms maximum input, with a flat frequency response on the order of 5 Hz to 10 MHz. Confirm exact transfer EMF and calibration constants from the unit certificate and operating note.

Applications

AC-DC transfer; true-RMS AC voltage metrology; calibration of AC sources and voltmeters.

Key Features

- Thermal converter (true-RMS sensing element)
- Input impedance: 50 Ω nominal class
- Max input: ~1 Vrms class (confirm label)
- Frequency response: approximately 5 Hz to 10 MHz (published class)
- Used with appropriate DC null / transfer instrumentation

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	11050A
Manufacturer	Keysight Technologies (Agilent / HP)
Instrument Type	Thermal Converter
Alias	11050A; HP 11050A; Agilent 11050A

RF / AC

50 Ω input; ~1 Vrms max; ~5 Hz-10 MHz flatness class

Operational Notes

Prefer original HP 11050A operating/service literature and calibration certificate. Do not invent transfer EMF tables.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.