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Agilent Technologies

Innovating the HP Way

HP 41800A Active Probe 5Hz to 500MHz



Product Overview

Reliable In-circuit Signal Analysis

The HP 41800A Active Probe provides high input impedance from 5Hz to 500MHz.

The HP 41800A Active Probe is a valuable tool when used with a Network and Spectrum Analyzer for circuit signal analysis. The HP 41800A improves your circuit design and evaluation for audio, video, HF and VHF bands.

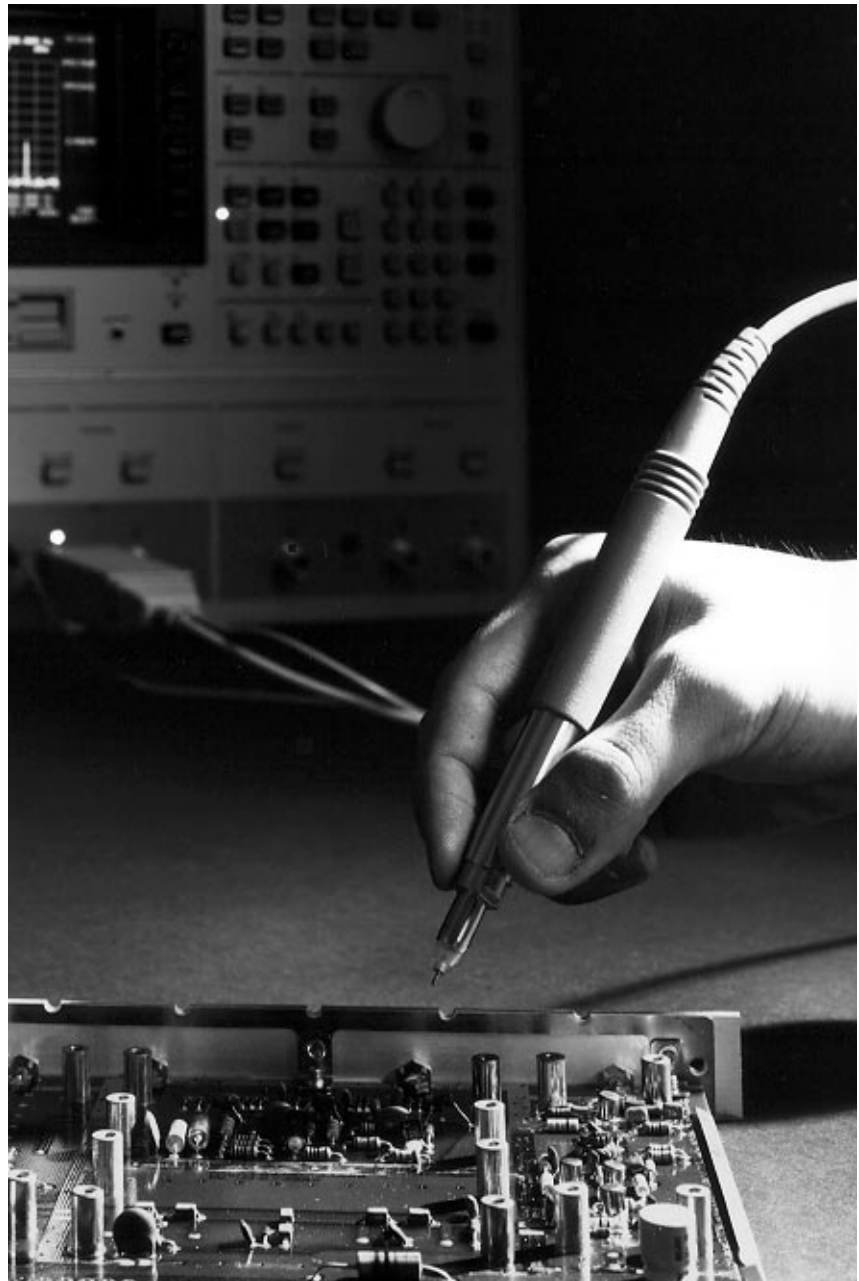
The low input capacitance offers probing with negligible circuit loading, making it effective for precise in-circuit measurements.

For both Spectrum and Network Analysis

The HP 41800A can be used with a Spectrum Analyzer to evaluate the quality of circuits by measuring spurious level, harmonics and noise. The active probe can also be used with a Network Analyzer to perform gain, phase and group-delay measurements at the circuit-level.

Retractable Metal Sleeve for Protection

In addition to excellent performance, the HP 41800A also has a design to protect the probe tip. The probe has a retractable metal sleeve which protects the probe tip from physical damage when not used and also from electro-static discharge (ESD) damage.



Compatible with HP Network and Spectrum Analyzers

The HP 41800A is directly compatible with HP Network and Spectrum Analyzers shown in the

table below. These HP Analyzers have the probe power supplied from the front panel. In addition, you can use the HP 11899A Probe Power Supply with other analyzers that don't have a compatible power supply for the HP 41800A.

Network/Spectrum Analyzer	Spectrum Analyzer	Network Analyzer
HP 4395A	HP 8560E Series	HP 8751A
HP 4396B	HP 8590 Series	HP E5100A

Specifications

(Terminated with HP P/N 11880-60001 Type N Adapter)

Bandwidth:

5Hz to 500MHz

Probe Gain:

0dB \pm 0.5dB @50MHz

Input R,C(typical):

100k Ω , 3pF (probe alone)
1M Ω , 1pF (with 10:1, 100:1 divider)

Frequency Response Relative to 50MHz:

+1/-2dB @<50Hz
 \pm 1dB @50Hz to 200MHz
+1.5/-2dB @>200MHz

Average Noise Level (typical):

10nV/ $\sqrt{\text{Hz}}$ @ \geq 300kHz
+3dB/Oct @<300kHz

2nd Harmonic Distortion (typical):

< -50dBc @-20dBm (250MHz) input

3rd Order Intermodulation Distortion (typical):

< -70dBc @-26dBm two signals input (400MHz, 400.5MHz)

1dB Gain Compression:

>+3dBm input @500MHz

Maximum Allowable Input (DC + AC): \pm 40V

Output Connector:

50 Ω type N male

Power: +15V/85mA, -12.6V/65mA weight: 0.3kg (probe alone)

2kg (included accessories)

Length: approximately 1.2m

Operating Temperature Humidity: 0°C to 55°C, RH \leq 95% (40°C)

Accessories Furnished:

HP 10218A Type BNC Male Adapter,
10:1, 100:1 Dividers,
HP 10229A Hook Tip,
2.5 inch Ground Lead,
30 mil, 12 mil Spare Probe Tips,
Spanner Tip Assembly,
Probe Tip Nut Driver,
Operating Note,
Carrying Case

Optional Accessories

HP 11899A Probe Power Supply
HP P/N 11880-60001 Type N Male Adapter
HP 41801A Probe Power Divider

Ordering information

HP 41800A Active Probe
HP 41801A Probe Power Divider

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Test and Measurement Call Center
P.O. Box 4026
Englewood, CO 80155-4026
1 800 452 4844

Canada:

Hewlett-Packard Canada Ltd.
5150 Spectrum Way
Mississauga, Ontario
L4W 5G1
(905) 206 4725

Europe:

Hewlett-Packard
European Marketing Centre
P.O. Box 999
1180 AZ Amstelveen
The Netherlands
(31 20) 547 9900

Japan:

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