

KEYSIGHT TECHNOLOGIES (AGILENT HP)

1142A

The Keysight (Agilent/HP) 1142A is a Probe Control and Power Module designed to provide power and offset control for active probes such as the HP 1141A 200 MHz Differential Probe and the HP 1144A 800 MHz Active Probe. It offers convenient front-panel controls for coupling selection and precise multi-turn offset adjustment.

SPECIFICATIONS

Physical

Power Supply	100 / 120 / 220 / 240 VAC ($\pm 10\%$), 47 - 440 Hz, 35 VA max
Operating Temperature	0 to +55 °C °C
Dimensions (W×H×D)	213 mm × 88 mm × 272 mm mm
Weight	2.2 kg kg

Input Channels and Signal Path

Number of Input Channels	1
Input Connector Type	Custom 10-pin probe connector
System Bandwidth	DC to 200 MHz (when used with HP 1141A probe)
System Rise Time	< 1.75 ns (when used with HP 1141A probe)
Signal Coupling Options	AC, DC, LF Reject
Low-Frequency AC Coupling Cutoff	< 1.75 Hz (into 50 Ω load)
Low-Frequency Reject Cutoff	< 17.5 Hz (into 50 Ω load)

Probe Power Outputs

DC Supply Voltages to Probe	± 15 V, +5 V
Probe Power Connector Type	10-pin receptacle (front panel)

Signal Outputs and Interface

Output Connector Type	BNC (female, front panel)
Output Impedance	50 Ω
Signal Path Gain	1 (unity gain, signal passed through)
Offset Voltage Control Range	± 1 V (with 10:1 attenuation), ± 10 V (with 100:1 attenuation)
Propagation Delay	Approx. 7 ns

Controls and Indicators

Power Switch Type	Push-push button (front panel)
Power On Indicator	Green LED
Overload Indicator	Red LED
Offset Adjustment Control	10-turn potentiometer (front panel)
Coupling Selector	3-position slide switch

AC Mains Power Requirements

Line Voltage Selection	100 / 120 / 220 / 240 VAC (±10%) selectable
Line Frequency Range	47 Hz to 440 Hz
Maximum Power Consumption	35 VA
Fuse Rating (100/120 V)	0.5 A T (time-delay)
Fuse Rating (220/240 V)	0.25 A T (time-delay)

Physical Characteristics

Form Factor	System II half-rack, 2U
Width (excluding feet/knobs)	213 mm
Height (excluding feet)	88 mm
Height (with feet)	102 mm
Depth (excluding connectors/knobs)	272 mm
Depth (with connectors/knobs)	311 mm
Net Weight	2.2 kg
Shipping Weight	3.6 kg

Environmental and Compliance

Storage Temperature Range	-40 °C to +75 °C
Operating Humidity Range	Up to 95% RH (non-condensing) at +40 °C
Maximum Operating Altitude	4,600 m (15,000 ft)
Maximum Storage Altitude	15,300 m (50,000 ft)

Compatibility and Accessories

Compatible Probe Models	Keysight / HP 1141A, HP 1144A
Compatible Oscilloscope Input	50 Ω BNC input

Regulatory & Compliance

Safety Standards	IEC 61010-1 / EN 61010-1
EMC Standards	EN 55011 / CISPR 11 / EN 50082-1

TECHNOLOGY

Active Probe Power & Control

APPLICATIONS

Power and control for active differential and single-ended oscilloscope probes

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