

KEYSIGHT TECHNOLOGIES (AGILENT HP)

85024A

The Keysight 85024A high-frequency active probe makes it easy to perform in-circuit measurements with minimal circuit loading, featuring an extremely low input capacitance of 0.7 pF shunted by 1 M Ω of resistance. Operating across a wide frequency range of 300 kHz to 3 GHz, it delivers 0 dB nominal gain with excellent flatness, making it an ideal companion for RF design and debugging on spectrum and network analyzers.

SPECIFICATIONS

Physical

Power Supply	+15 V (130 mA), -12.6 V (45 mA) from probe power port or external supply
Operating Temperature	0 to 55 °C °C
Weight	0.255 kg kg

RF Input Characteristics

Frequency Range	300 kHz to 3 GHz (usable down to 100 kHz)
Input Resistance at DC	1 M Ω (nominal)
Input Capacitance	< 0.7 pF (nominal, at 500 MHz)
Maximum Safe RF Input Voltage	± 1.5 V peak
Maximum Safe DC Input Voltage	± 50 V
Maximum Safe RF Input Voltage (with 10:1 divider)	± 15 V peak
Maximum Safe DC Input Voltage (with 10:1 divider)	± 200 V

Transmission Characteristics

Average Gain	0 dB $\pm$ 1.25 dB
Gain Flatness (300 kHz to 1 GHz)	± 1.25 dB (relative to average gain)
Gain Flatness (1 GHz to 3 GHz)	± 2.5 dB (relative to average gain)

RF Output & Interface

Output Impedance	50 Ω (nominal)
Output Connector Type	Type-N male

Dynamic Range & Noise

1 dB Compression Point (Input Voltage)	0.3 V
Noise Figure (Below 100 MHz)	< 50 dB
Noise Figure (100 MHz to 3 GHz)	< 25 dB
Harmonic Distortion	< -30 dBc (at 0.3 V input)

Power Requirements

Power Supply Voltages Required	+15 V (130 mA), -12.6 V (45 mA)
Power Supply Current (+15 V)	130 mA
Power Supply Current (-12.6 V)	45 mA

Physical & Mechanical Specifications

Cable Length	1.2 m (nominal)
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Accessories & Options

10:1 Divider Input Capacitance	< 0.7 pF
10:1 Divider Input Resistance	1 MΩ
10:1 Divider Compression Point	3 V (for 1 dB compression)

Environmental

Storage Temperature	-40 to +75 °C
Operating Altitude	4,600 m
Storage Altitude	15,200 m

Physical Characteristics

Shipping Weight	1.49 kg
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10:1 Divider

Divider Attenuation	10:1 (20 dB)
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General

Compatible Probe Power Supply	Keysight 11899A (for instruments without probe power)
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TECHNOLOGY

Active RF Probe

APPLICATIONS

In-circuit RF troubleshooting and swept measurements

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