

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8449B

The Keysight (Agilent HP) 8449B is a high-gain, low-noise microwave preamplifier operating from 1.0 GHz to 26.5 GHz. Designed to enhance the sensitivity of spectrum analyzers and EMI receivers, it features solid-state GaAs FET technology, excellent gain flatness, and low noise figures across its entire frequency range, making it an essential tool for low-level signal analysis and electromagnetic compatibility testing.

SPECIFICATIONS

Frequency & Gain

Frequency Range	1.0 GHz to 26.5 GHz
Minimum Gain	23.5 dB
Gain Flatness (1.0 to 26.5 GHz)	±4.5 dB

Noise & Distortion

Noise Figure (1.0 to 12.0 GHz)	≤ 8.5 dB (7.0 dB typical)
Noise Figure (12.0 to 22.0 GHz)	≤ 12.5 dB (10.3 dB typical)
Noise Figure (22.0 to 26.5 GHz)	≤ 14.5 dB (11.2 dB typical)
Output Power at 1 dB Compression (P1dB)	≥ +7 dBm (+10 dBm typical)

Port Specifications

RF Input Connector	3.5 mm (female)
RF Output Connector	3.5 mm (female)
Input Impedance	50 Ω (nominal)
Output Impedance	50 Ω (nominal)

Options & Accessories

Option 910	Additional operating and service manual
------------	---

Performance

Third-Order Intercept Point (IP3)	+17 dBm (typical)
Typical Noise Figure (1.0 to 12.0 GHz)	7.0 dB
Typical Noise Figure (12.0 to 22.0 GHz)	10.3 dB
Typical Noise Figure (22.0 to 26.5 GHz)	12.5 dB
Typical Output Power at 1 dB Compression	+10 dBm
Typical Input VSWR (1.0 to 12.0 GHz)	1.5
Typical Input VSWR (12.0 to 26.5 GHz)	2.0
Typical Output VSWR (1.0 to 12.0 GHz)	1.5
Typical Output VSWR (12.0 to 26.5 GHz)	1.8

Environmental

Operating Humidity Range	Up to 95% RH @ 40 °C (non-condensing)
Operating Altitude Limit	Up to 4,570 m (15,000 ft)
Storage Altitude Limit	Up to 15,240 m (50,000 ft)
Pollution Degree	Degree 2

Compliance

EMC Compliance	CISPR Pub 11/EN 55011 Group 1, Class A
Equipment Class	Class I (grounded)

Maintenance

Recommended Calibration Cycle	12 months
-------------------------------	-----------

Power

AC Line Fuse	0.5 A / 250 V (100/120 V AC operation), 0.25 A / 250 V (220/240 V AC operation)
--------------	---

TECHNOLOGY

Solid-state GaAs FET

APPLICATIONS

RF & Microwave Signal Analysis, EMI/EMC Testing, Sensitivity Enhancement

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