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**Data Sheet**

August 12, 2026

KEYSIGHT / AGILENT

# Keysight (Agilent) 11909A Low Noise Amplifier, 9 kHz to 1 GHz

Keysight / Agilent 11909A Low Noise Amplifier, 9 kHz to 1 GHz The 11909A is a broadband low-noise amplifier covering 9 kHz to 1 GHz, commonly used ahead of spectrum analyzers to improve sensitivity for EMI and weak-signal measurements. The 11909A is a broadband low-noise amplifier covering 9 kHz to 1 GHz, commonly used ahead of spectrum analyzers to improve sensitivity for EMI and weak-signal measurements.



MODEL

**Keysight / Agilent  
11909A**

CALIBRATION

**Available on  
request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**11909A**

LISTING

<https://aumictechlabs.com/products/11909a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

## This unit

The Keysight (Agilent) 11909A is a low-noise amplifier that extends measurement system sensitivity across 9 kHz to 1 GHz by delivering 32 dB gain with minimal noise contribution. Designed for precision detection of weak signals, it operates with a noise figure of 1.8 dB typical (5 MHz to 500 MHz) and maintains gain flatness of  $\pm 0.5$  dB across most of its operating range. The amplifier handles up to +10 dBm output at 1 dB compression point and accepts maximum linear input of  $\pm 24$  mV, making it suitable for applications where signal fidelity and system noise performance directly impact measurement accuracy.

Technical Specifications

Frequency & Gain

Frequency range: 9 kHz to 1 GHz ( $-3$  dB) Amplifier gain: 32 dB  $\pm$  1.5 dB @ 100 MHz Gain flatness:  $\pm 0.5$  dB (25 kHz to 800 MHz) Noise Performance Noise figure: 1.8 dB typical, 2.5 dB maximum (5

MHz to 500 MHz) Noise figure: 2.5 dB typical (1 GHz) Power & Impedance Output power at 1 dB compression: +10 dBm Impedance: 50 ohms Input return loss: 8 dB Output return loss: 10 dB Reverse isolation: 35 dB Input Protection Maximum input for linear operation:  $\pm 24$  mV Input damage level:  $\pm 2$  V DC Environmental & Power Operating temperature: 0 °C to 55 °C Storage temperature: -25 °C to 75 °C Power supply: 100, 120, 220, or 240 V AC, 50/60 Hz, 20 VA Physical Dimensions: 91 mm (H)  $\times$  109 mm (W)  $\times$  183 mm (D) Weight: 3.3 lbs (1.5 kg) Connectors: Type N input/output

**Key Features** Low-noise design optimized for weak signal detection Stable gain across 9 kHz to 1 GHz bandwidth 50 ohm matched input and output Direct integration with spectrum analyzers and receiver systems

**Typical Applications** Enhancing receiver and spectrum analyzer sensitivity Close-field probe measurements for device emissions Radiated emissions testing with antenna-based systems

**Compatibility & Integration** The 11909A pairs with Keysight (Agilent) 11940A and 11941A close-field probes for low-level emission detection.

## Features & description

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From manufacturer datasheet

### Features

- Frequency range: 9 kHz to 1 GHz
- Typical gain: ~32 dB (published typical)
- Noise figure: typically ~1.8 to 2.5 dB class (published literature)
- Role: low-noise RF preamplifier
- Form: compact amplifier accessory

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### Applications

- Preamp for spectrum analyzers / EMI receivers
- Weak-signal RF amplification 9 kHz–1 GHz
- Noise-figure-sensitive front-end boost

# 11909A Characteristics / Specifications

| PARAMETER            | VALUE                                                                                                                                                                                                                |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model                | 11909A                                                                                                                                                                                                               |
| Manufacturer         | Keysight / Agilent                                                                                                                                                                                                   |
| Instrument Type      | Low Noise Amplifier                                                                                                                                                                                                  |
| Alias                | 11909A; Agilent 11909A; HP 11909A; Keysight 11909A                                                                                                                                                                   |
| Frequency            | 9 kHz to 1 GHz                                                                                                                                                                                                       |
| Gain typical         | 32 dB                                                                                                                                                                                                                |
| Noise figure typical | 1.8–2.5 dB Notes Gain/NF from Agilent/Keysight 11909A product literature summaries. Confirm connector type and power supply arrangement on the unit; finer guaranteed specs belong on the OEM datasheet/calibration. |
| Frequency range      | 9 kHz to 1 GHz                                                                                                                                                                                                       |
| Typical gain         | ~32 dB (published typical)                                                                                                                                                                                           |
| Noise figure         | typically ~1.8 to 2.5 dB class (published literature)                                                                                                                                                                |
| Role                 | low-noise RF preamplifier                                                                                                                                                                                            |
| Form                 | compact amplifier accessory                                                                                                                                                                                          |

# 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.

Specifications

Specifications

| PARAMETER       | VALUE                                              |
|-----------------|----------------------------------------------------|
| Model           | 11909A                                             |
| Manufacturer    | Keysight / Agilent                                 |
| Instrument Type | Low Noise Amplifier                                |
| Alias           | 11909A; Agilent 11909A; HP 11909A; Keysight 11909A |

Specifications

| PARAMETER            | VALUE          |
|----------------------|----------------|
| Frequency            | 9 kHz to 1 GHz |
| Gain typical         | 32 dB          |
| Noise figure typical | 1.8-2.5 dB     |

Notes  
Gain/NF from Agilent/Keysight 11909A product literature summaries. Confirm connector type and power supply arrangement on the unit; finer guaranteed specs belong on the OEM datasheet/calibration.

### Available from Aumictech

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

Request a quote: [sales@aumictech.com](mailto: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.