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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 8347A RF Amplifier, 100 kHz to 3 GHz

The HP 8347A is a broadband RF amplifier covering 100 kHz to 3 GHz. OEM specifications list approximately 25 dB gain, low noise figure, and leveled output capability for spectrum analyzer and general RF front-end amplification. Spectrum analyzer preamplification, general RF gain blocks to 3 GHz, and improving displayed average noise level in low-level measurements. Gain Flatness Class: plus or minus 1.5 dB class OEM sheet Noise Figure Class: less than 8 dB midband class Spurious Class: low spurious amplifier class Weight Class: compact amplifier class sheet Calibration: Factory gain characterization From HP 8347A RF amplifier data sheet. Exact gain flatness, noise figure versus frequency, and compression points are on the OEM specification table.



MODEL

**Agilent / Keysight
8347A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

8347A

LISTING

<https://aumictechlabs.com/products/8347a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight 8347A is a broadband RF amplifier engineered for instrumentation and test applications across 100 kHz to 3 GHz. It delivers minimum gain of 25 dB with leveled output power spanning +2 dBm to +20 dBm, addressing signal losses in network analysis, receiver characterization, and high-power device drive scenarios. An internal leveling loop (ALC) reduces mismatch effects and maintains output flatness within ± 1.5 dB across the operating band, enabling

repeatable measurements in demanding test environments.

Technical Specifications

Frequency & Power Frequency range: 100 kHz to 3 GHz Gain: ≥ 25 dB (typical, 20–30°C) Maximum leveled output power: $\geq +20$ dBm Output leveling range (>300 kHz): +2 dBm to +20 dBm 1 dB compression point: +22 dBm (nominal) Third-order intercept: +30 dBm (nominal) Power flatness (internally-leveled, ± 300 kHz): ± 1.5 dB Distortion & Noise Harmonic distortion at +20 dBm (ALC Off): ≤ -25 dBc Harmonic distortion at +20 dBm (ALC On): ≤ -20 dBc Noise figure (10 MHz to 3 GHz): <15 dB (typical) Noise figure (below 10 MHz): <20 dB (typical) Impedance & Return Loss RF impedance: 50 ohms nominal Input VSWR: 60 dB (typical) Input & Power Maximum input for minimum internally-leveled output: -14 dBm Maximum continuous input power: +27 dBm AC supply: 100, 120, 200, or 240 V ($\pm 10\%$), 50–400 Hz Power consumption: 45 VA maximum

Key Features Type N female RF connectors (input and output) Internal automatic level control for output power stabilization Compact benchtop form factor: 213 mm W $\times$ 102 mm H $\times$ 297–298 mm D Net weight: 3.5–4 kg; shipping weight: 5 kg

Typical Applications Network analyzer drive and receiver enhancement Low-level signal amplification in receiver front-end testing High-power device characterization and validation Wideband instrumentation requiring flat gain across multiple octaves

Compatibility & Integration Standard 50-ohm interface with Type N connectors supports integration into existing RF test systems. Leveled output accommodates mismatched loads while maintaining measurement accuracy.

8347A Characteristics / Specifications

PARAMETER	VALUE
Frequency Range	100 kHz to 3 GHz
Gain Typical	25 dB
Gain Flatness Class	plus or minus 1.5 dB class OEM sheet
Noise Figure Class	less than 8 dB midband class
Output Power At 1 dB Compression Class	greater than plus 7 dBm class
Input Impedance	50 Ohm
Output Impedance	50 Ohm
VSWR Class	less than 2.0:1 class
Maximum Input Power Class	damage limit on OEM sheet
Connector Type	TypeNfemale class
Instrument Type	RF amplifier
Form Factor	Benchtop
Operating Temperature Class	0 C to 55 C
Power Line	100/120/220/240 V class
Reverse Isolation Class	specified on OEM sheet
Spurious Class	low spurious amplifier class
Series Family	HP 834x RF amplifiers
Minimum Frequency	100 kHz
Maximum Frequency	3 GHz
DC Block	AC coupled RF path class
Weight Class	compact amplifier class sheet
Calibration	Factory gain characterization
Operating temperature	Class: 0 C to 55 C

8347A Specifications

PARAMETER	VALUE
HP Agilent 8347A RF Amplifier	Overview
Applications	Spectrum analyzer preamplification, general RF gain blocks to 3 GHz, and improving displayed average noise level in low-level measurements.
Key Features	100 kHz to 3 GHz coverage
Approximately 25 dB gain	Low noise figure
Compact benchtop amplifier	50 Ohm RF path
Technical Specifications	Frequency Range: 100 kHz to 3 GHz

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
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Spurious Class	low spurious amplifier class
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Maximum Frequency	3 GHz
DC Block	AC coupled RF path class
Weight Class	compact amplifier class sheet
Calibration	Factory gain characterization Notes From HP 8347A RF amplifier data sheet. Exact gain flatness, noise figure versus frequency, and compression points are on the OEM specification table.

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 list approximately 25 dB gain, low noise figure, and leveled output capability for spectrum analyzer and general RF front-end amplification.

Applications

Spectrum analyzer preamplification, general RF gain blocks to 3 GHz, and improving displayed average noise level in low-level measurements.

Key Features

100 kHz to 3 GHz coverage

Approximately 25 dB gain

Low noise figure

Compact benchtop amplifier

50 Ohm RF path

Technical Specifications

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Notes
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Available from Aumictech

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

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
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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.