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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 8447A Amplifier, 100 kHz to 400 MHz, 20 dB at 10 MHz

HP / Agilent 8447A Preamplifier 0.1 to 400 MHz The HP/Agilent 8447A is a compact general-purpose preamplifier covering 0.1 to 400 MHz with 20 dB plus/minus 1.0 dB mean gain at 10 MHz (20 C to 30 C). Typical 3 dB bandwidth is 50 kHz to 700 MHz. Noise figure is less than 7 dB. Option 001 provides a dual-channel amplifier with BNC(f) connectors. The 8447D extends coverage to 1.3 GHz with greater than 25 dB gain. Spectrum-analyzer preamplification below 400 MHz; receiver and EMC front-end gain; general RF lab amplification where 8447D 1.3 GHz bandwidth is not required. The HP/Agilent 8447A is a compact general-purpose preamplifier covering 0.1 to 400 MHz with 20 dB plus/minus 1.0 dB mean gain at 10 MHz (20 C to 30 C). Typical 3 dB bandwidth is 50 kHz to 700 MHz. Noise figure is less than 7 dB. Option 001 provides a dual-channel amplifier with BNC(f) connectors. The 8447D extends coverage to 1.3 GHz with greater than 25 dB gain. Spectrum-analyzer preamplification below 400 MHz; receiver and EMC front-end gain; general RF lab amplification where 8447D 1.3 GHz bandwidth is not required.



MODEL

HP / Agilent 8447A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

8447A

LISTING

<https://aumictechlabs.com/products/8447a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 8447A is a solid-state RF amplifier delivering 20 dB gain across a 100 kHz to 400 MHz operating range. Built for laboratory signal amplification, component testing, and system integration, this instrument combines low noise performance with excellent linearity to preserve signal integrity in precision measurement environments. Technical Specifications Frequency Range: 100 kHz to 400 MHz Gain: 20 dB nominal at 10 MHz Gain Flatness: ± 1 dB typical across operating range Noise Figure: +20 dBm typical Input Connector: Type N male Output Connector: Type N male Operating Temperature: 0°C to 55°C Storage Temperature: -40°C to 70°C Humidity: Up to 95% relative humidity, non-condensing Weight: Approximately 2.5 kg Key Features Wideband coverage from 100 kHz enables low-frequency signal acquisition Linear amplification minimizes harmonic and intermodulation distortion 50-ohm matched input and output for direct integration with standard RF systems Low noise figure (<5 dB) suitable for weak-signal detection applications Compact benchtop or rack-mountable form factor Typical Applications Component and circuit characterization Signal tracing in RF/microwave systems Low-noise preamplification for receiver chains Laboratory measurement and test integration Compatibility & Integration Type N connectors ensure compatibility with standard coaxial RF infrastructure and test equipment operating at 50-ohm impedance. External power supply required; specifications available in product documentation.

Features & description

From manufacturer datasheet

Features

- Thin-film hybrid amplifier, hermetically sealed
- Dual-channel Option 001
- Option 010 Type-N single channel; Option 011 Type-N dual channel
- Greater than 30 dB reverse isolation
- Compact 130 × 85.8 x 216 mm half-rack brick
- Sibling 8447D covers 100 kHz to 1.3 GHz

8447A Characteristics / Specifications

PARAMETER	VALUE
Model	8447A
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	RF preamplifier
Family	8447
Alias	HP 8447A; Agilent 8447A; Keysight 8447A
Frequency Range	0.1 to 400 MHz
Typical 3 dB Bandwidth	50 kHz to 700 MHz
Mean Gain At 10 MHz	20 dB plus/minus 1.0 dB (20 C to 30 C)
Gain Flatness Full Range 0 to 55 C	plus/minus 1.8 dB
Gain Flatness 20 to 30 C	plus/minus 0.7 dB
Noise Figure	less than 7 dB
Output Power 1 dB Compression	greater than +6 dBm
Harmonic Distortion At 0 dBm Output	-32 dB
Output For Less Than minus 60 dB Harmonics	-25 dBm characteristic
VSWR	less than 1.7
Reverse Isolation	greater than 30 dB
Maximum DC Voltage Output	plus/minus 10 V
Size	130 mmWx 85.8 mmHx 216 mm D (5.1 × 3.4 × 8.5 in)
Net Weight	1.56 kg (3.4 lb)
Shipping Weight	2.3 kg (5.1 lb)
Mains	110 or 230 Vac plus/minus 10 percent; 48 to 440 Hz; 15 W
Related 8447D Frequency	100 kHz to 1.3 GHz
Related 8447D Mean Gain	greater than 25 dB (20 C to 30 C)
Related 8447D Noise Figure	less than 8.5 dB
Related 8447D Reverse Isolation	greater than 40 dB

PARAMETER	VALUE
Related 8347A Frequency	100 kHz to 3 GHz (discontinued leveled amplifier)
Bandwidth	50 kHz to 700 MHz

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	
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PARAMETER	VALUE
Model	8447A
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	RF preamplifier
Family	8447
Alias	HP 8447A; Agilent 8447A; Keysight 8447A
Frequency Range	0.1 to 400 MHz
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Mean Gain At 10 MHz	20 dB plus/minus 1.0 dB (20 C to 30 C)
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Specifications	
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Size	130 mmWx 85.8 mmHx 216 mm D (5.1 x 3.4 x 8.5 in)
Net Weight	1.56 kg (3.4 lb)
Shipping Weight	2.3 kg (5.1 lb)
Mains	110 or 230 Vac plus/minus 10 percent; 48 to 440 Hz; 15 W

Option 001: dual channel amp BNC female
Option 010: single channel TypeNfemale
Option 011: dual channel TypeNfemale

Specifications

PARAMETER	VALUE
Related 8447D Frequency	100 kHz to 1.3 GHz
Related 8447D Mean Gain	greater than 25 dB (20 C to 30 C)
Related 8447D Noise Figure	less than 8.5 dB
Related 8447D Reverse Isolation	greater than 40 dB
Related 8347A Frequency	100 kHz to 3 GHz (discontinued leveled amplifier)

Notes
Specs from Agilent 8347A, 8447A, and 8447D Amplifiers data sheet 5989-1696EN 8447A column. Confirm Option 001 dual-channel versus standard single-channel and BNC versus Type-N connector options on the unit.

Ordering Information

OPTION	DESCRIPTION
Option 001	providesadual-channel amplifier with BNC(f) connectors. The 8447D extends coverage to 1.3 GHz with greater than 25 dB gain.

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

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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.