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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 8447D Amplifier, 100 kHz to 1.3 GHz Gain: > 25 dB

HP / Agilent 8447D Preamplifier 100 kHz to 1.3 GHz The HP/Agilent 8447D is a general-purpose wideband preamplifier from 100 kHz to 1.3 GHz with greater than 25 dB mean gain (20 C to 30 C) and less than 8.5 dB noise figure. Typical 3 dB bandwidth is 75 kHz to 1.7 GHz. Gain flatness is plus/minus 1.5 dB across the specified range. Option 001 is dual-channel BNC; Options 010/011 select Type-N connectors. Spectrum-analyzer sensitivity improvement to 1.3 GHz; EMC/MIL-STD preamplification in this band; general RF lab gain ahead of counters, analyzers, and receivers. The HP/Agilent 8447D is a general-purpose wideband preamplifier from 100 kHz to 1.3 GHz with greater than 25 dB mean gain (20 C to 30 C) and less than 8.5 dB noise figure. Typical 3 dB bandwidth is 75 kHz to 1.7 GHz. Gain flatness is plus/minus 1.5 dB across the specified range. Option 001 is dual-channel BNC; Options 010/011 select Type-N connectors. Spectrum-analyzer sensitivity improvement to 1.3 GHz; EMC/MIL-STD preamplification in this band; general RF lab gain ahead of counters, analyzers, and receivers.



MODEL

HP / Agilent 8447D

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

8447D

LISTING

<https://aumictechlabs.com/products/8447d-/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 8447D is a solid-state pre-amplifier that increases receiver sensitivity and signal generator output power across a broad frequency spectrum. Operating from 100 kHz to 1.3 GHz

with greater than 25 dB typical gain, the 8447D delivers consistent amplification with minimal noise figure (25 dB typical (26 dB @ 20–30°C); ± 1.5 dB flatness across full band Noise Figure: +7 dBm at 1 dB gain compression Output Impedance: 50 Ω Input/Output VSWR: 40 dB Harmonic Distortion: ≤ -25 dBc (ALC off); ≤ -20 dBc typical (ALC on) Connectors: BNC standard; Type-N optional (Option 010) Power Supply: 110–230 Vac $\pm 10\%$, 48–440 Hz, 15 W consumption Operating Temperature: 0 to +55°C Physical Dimensions: 130 $\times$ 85.8 $\times$ 216 mm (5.1 $\times$ 3.4 $\times$ 8.5 in); 1.56 kg net Key Features Hermetically sealed solid-state construction with thin film hybrid and integrated circuit amplifiers Exceptional gain flatness with ± 0.7 dB variation over 20–30°C operating window Low noise performance suitable for sensitive receiver applications High reverse isolation prevents source loading and feedback Typical Applications RF signal sensitivity enhancement for spectrum analyzers, power meters, and EMI instruments Counter and RF voltmeter input conditioning Signal generator and sweep generator output boosting Compatibility & Integration Single and dual-channel configurations available. Dual-channel Option 001 (BNC) and Option 011 (Type-N) support parallel amplification for multi-channel test setups.

Features & description

From manufacturer datasheet

Features

- Thin-film hybrid, hermetically sealed, low distortion
- Dual-channel Option 001 (same die as 8447F preamp section)
- Greater than 40 dB reverse isolation
- Typical 1 dB compression greater than +7 dBm
- 15 W 48-to-440 Hz AC brick
- Do not confuse with 8447A (400 MHz) or 8447E power amplifier (22 dB)

8447D Characteristics / Specifications

PARAMETER	VALUE
Model	8447D
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	RF preamplifier
Family	8447
Alias	HP 8447D; Agilent 8447D; Keysight 8447D
Frequency Range	100 kHz to 1.3 GHz
Typical 3 dB Bandwidth	75 kHz to 1.7 GHz
Mean Gain	greater than 25 dB (20 C to 30 C)
Gain Flatness Full Range	plus/minus 1.5 dB
Noise Figure	less than 8.5 dB
Output Power 1 dB Compression Typical	greater than +7 dBm
Harmonic Distortion At 0 dBm Output	-30 dB
Output For Less Than minus 60 dB Harmonics	-30 dBm
VSWR Input 1 to 1300 MHz	less than 2.0
VSWR Output	less than 2.2
Reverse Isolation	greater than 40 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 8447A Frequency	0.1 to 400 MHz
Related 8447A Mean Gain	20 dB plus/minus 1.0 dB at 10 MHz
Related 8447A Noise Figure	less than 7 dB
Related 8447E Mean Gain	22 dB plus/minus 2.0 dB (power amplifier)

PARAMETER	VALUE
Related 8447F Cascade Gain	47 dB (preamp plus power amp in one box)
Typical 3 dB Bandwidth Opt 001/0	0.075 to 1700 MHz class (8447D/E table)
Bandwidth	75 kHz to 1.7 GHz

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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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 8447A Frequency	0.1 to 400 MHz
Related 8447A Mean Gain	20 dB plus/minus 1.0 dB at 10 MHz
Related 8447A Noise Figure	less than 7 dB
Related 8447E Mean Gain	22 dB plus/minus 2.0 dB (power amplifier)
Related 8447F Cascade Gain	47 dB (preamp plus power amp in one box)
Typical 3 dB Bandwidth Opt 001/011	0.075 to 1700 MHz class (8447D/E table)

Notes
Specs from Agilent 5989-1696EN 8447D column and the HP 8447D/E/F catalog table for typical 3 dB bandwidth. Confirm single versus dual channel and BNC versus Type-N. 8447F-H64 isadifferent dual-preamp special (see hp-8447f-h64.txt).

Ordering Information

OPTION	DESCRIPTION
Option 001	is dual-channel BNC; Options 010/011 select Type-N connectors.

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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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.