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Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 8447E 0.1-1300 MHz power amplifier; 115/230 V

The HP 8447E is a general-purpose wideband RF power amplifier providing 22 dB mean gain from 100 kHz to 1.3 GHz. OEM user-manual specifications list ± 1.5 dB flatness, typical noise figure under 11 dB, strong reverse isolation, and compact System II packaging for boosting generators and swept sources. Used to increase output power of signal generators and swept sources, improve drive levels into mixers and amplifiers under test, and provide flat gain across VHF/UHF bands in lab, shop, and field setups. VSWR 1 to 1400 MHz input: less than 2.2:1 VSWR 1 to 1400 MHz output: less than 2.5:1 Power requirements: 115 or 230 Vac $\pm 10\%$, 48 to 440 Hz Values are from the HP 8447D/E/F User Manual specification tables for the 8447E power amplifier. Do not exceed OEM maximum input levels; output power can exceed 100 mW and may damage sensitive loads.



MODEL

HP / Agilent 8447E

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

8447E

LISTING

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

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 8447E is a solid-state power amplifier spanning 0.1 to 1300 MHz, delivering 22 dB ± 1.5 dB mean gain with ± 1.5 dB flatness across the full frequency range. Built on thin-film hybrid integrated circuit technology and hermetically sealed for reliability, It has output power $\geq +12.5$ dBm at 1 dB gain compression (0.1 to 1000 MHz) with harmonic distortion of -30 dB at +10 dBm

output. The amplifier exhibits low noise performance (-40 dB), and VSWR < 2.2 across 1 to 1300 MHz, making it suitable for signal boosting in test, measurement, and communication applications. Hermetic construction ensures performance stability across 0°C to $+55^{\circ}\text{C}$ operating range. The 8447E accepts 115/230 VAC $\pm 10\%$, 48–440 Hz input with 15 W power consumption and standard $50\ \Omega$ BNC connectors (Type-N optional). Technical Specifications Frequency Range: 0.1 to 1300 MHz Impedance: $50\ \Omega$ Mean Gain: $22\ \text{dB} \pm 1.5\ \text{dB}$ (20 – 30°C) Gain Flatness: $\pm 1.5\ \text{dB}$ across full frequency range 3 dB Bandwidth: 0.05 to 1400 MHz Output Power (1 dB compression): $\geq +12.5\ \text{dBm}$ (0.1–1000 MHz) Harmonic Distortion: $-30\ \text{dB}$ for $+10\ \text{dBm}$ output VSWR: $40\ \text{dB}$ Noise Figure: $< 11\ \text{dB}$ typical Risettime: 420 psec typical Group Delay: 1.5 nsec typical (variation $< 0.25\ \text{nsec}$ over any 50 MHz band) Input/Output: $50\ \Omega$ BNC (female) or optional Type-N (female) Power Supply: 115/230 VAC $\pm 10\%$, 48–440 Hz Power Consumption: 15 W (27 VA max) Operating Temperature: 0 – $+55^{\circ}\text{C}$ Storage Temperature: -40 – $+75^{\circ}\text{C}$ Dimensions: $216 \times 130 \times 85.8\ \text{mm}$ Weight: 1.75 kg Key Features Thin-film hybrid integrated circuit construction with hermetic sealing Low noise and flat gain response across decade-spanning frequency range High reverse isolation for improved system stability Fast risetime (420 psec) and minimal group delay variation Selectable dual-voltage power input for international deployment Typical Applications RF signal amplification from generators and sweepers Measurement and test system signal conditioning Communication system power boosting Compatibility & Integration Cascadable with other 8447 series amplifiers (e.g., 8447D preamplifier) to achieve higher small-signal gain. Connector optionality enables integration with diverse RF system architectures.

8447E Characteristics / Specifications

PARAMETER	VALUE
Frequency range	0.1 to 1300 MHz
Typical 3 dB bandwidth	0.075 to 1400 MHz
Gain flatness across frequency range	±1.5 dB
Noise figure	less than 11 dB typical
Output power for 1 dB gain compression 0.1 to 1000 MHz	≥ +12.5 dBm
VSWR 1 to 1300 MHz input	less than 2.2:1
VSWR 1 to 1300 MHz output	less than 2.2:1
VSWR 1 to 1400 MHz input	less than 2.2:1
VSWR 1 to 1400 MHz output	less than 2.5:1
Impedance	50 ohm
Reverse isolation	greater than 40 dB
Maximum DC input voltage	±10 V
Typical risetime	420 ps
Typical group delay	1.5 ns
Maximum recommended RF input	−10 dBm
Power requirements	115 or 230 Vac ±10%, 48 to 440 Hz
Power consumption	15 W, 27 VA max
Net weight	1.59 kg
Dimensions	216 mm × 130 mm × 85.8 mm
Operating temperature	0 °C to +55 °C
Storage temperature	−40 °C to +75 °C
Bandwidth	0.075 to 1400 MHz

8447E Specifications

PARAMETER	VALUE
HP Agilent 8447E RF Power Amplifier	Overview
Greater than 40 dB reverse isolation	Compact half-width package shared with 8447D/F family
Technical Specifications	Frequency range: 0.1 to 1300 MHz

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	−40 °C to +75 °C
Operating temperature	0 °C to +55 °C
Operating Temperature	0 °C to +55 °C

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 ±1.5 dB flatness, typical noise figure under 11 dB, strong reverse isolation, and compact System II packaging for boosting generators and swept sources.

Applications

Used to increase output power of signal generators and swept sources, improve drive levels into mixers and amplifiers under test, and provide flat gain across VHF/UHF bands in lab, shop, and field setups.

Key Features

Thin-film hybrid amplifier with flat response and long-term stability

BNC standard connectors with Option 010 Type-N connectors

Greater than 40 dB reverse isolation

Compact half-width package shared with 8447D/F family

Suitable cascade partner with 8447D preamp for higher total gain

Wide AC line frequency acceptance to 440 Hz

Technical Specifications

Frequency range: 0.1 to 1300 MHz

Typical 3 dB bandwidth: 0.075 to 1400 MHz

Mean gain 20 °C to 30 °C: 22 dB ±2.0 dB

Gain flatness across frequency range: ±1.5 dB

Noise figure: less than 11 dB typical

Output power for 1 dB gain compression 0.1 to 1000 MHz: ≥+12.5 dBm

Harmonic distortion at +8 dBm output: -30 dB

Typical output for less than -60 dB harmonic distortion: -20 dBm

Specifications

PARAMETER	VALUE
VSWR 1 to 1300 MHz input	less than 2.2:1
VSWR 1 to 1300 MHz output	less than 2.2:1
VSWR 1 to 1400 MHz input	less than 2.2:1
VSWR 1 to 1400 MHz output	less than 2.5:1
Impedance	50 ohm
Reverse isolation	greater than 40 dB
Maximum DC input voltage	±10 V
Typical risetime	420 ps
Typical group delay	1.5 ns
Maximum recommended RF input	-10 dBm
Power requirements	115 or 230 Vac ±10%, 48 to 440 Hz
Power consumption	15 W, 27 VA max
Net weight	1.59 kg
Dimensions	216 mm × 130 mm × 85.8 mm
Operating temperature	0 °C to +55 °C

PARAMETER	VALUE
Storage temperature	-40 °C to +75 °C

Notes
Values are from the HP 8447D/E/F User Manual specification tables for the 8447E power amplifier. Do not exceed OEM maximum input levels; output power can exceed 100 mW and may damage sensitive loads.

Ordering Information

OPTION	DESCRIPTION
Option 010	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

Aumictech

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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.