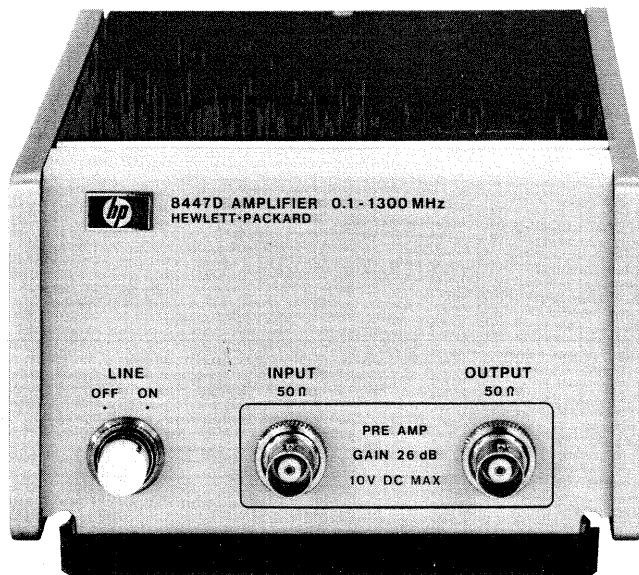


# AMPLIFIERS

## RF Amplifiers

### Models 8447A/D/E/F

- Wide band (multi-decade)
- Low noise
- Flat response



HP 8447D

The HP 8447 series of general-purpose amplifiers offers high reliability and the convenience of a small, lightweight package.

### High Performance

These low noise, high gain amplifiers provide the flat frequency response and low distortion required for a wide range of uses. They can be used to improve the sensitivity of counters, spectrum analyzers,

RF voltmeters, EMI meters, power meters, and other devices; or to increase the maximum power available from a signal generator or sweeper.

### Broadband Frequency Coverage

The HP 8447 series offers an amplifier for nearly every application in the 100 kHz to 1.3 GHz frequency range. The amplifiers' wide bandwidths are compatible with other wideband instruments used for making measurements involving broadband spectra.

### Options

Standard connectors are BNC (f) on all amplifiers.  
 Option 010 ..... N (f) connectors on single channel amplifier.  
 Option 001 ..... Dual channel amplifier, BNC (f) connectors.  
 Option 011 ..... Dual channel amplifier, N (f) connectors.  
**Note:** dual-channel amplifiers are ideal for dual-channel systems such as oscilloscopes or network analyzers. Channels may also be cascaded for increased small-signal gain.

### General

**Weight:** net, 1.56 kg (3.4 lb). Shipping, 2.30 kg (5.1 lb).  
**Size:** 85.8 H x 130 W x 216 mm D (3.4" x 5.1" x 8.5").  
**Power requirements:** 110 or 230 V ac  $\pm$  10%, 48-440 Hz, 15 watts.

### Ordering Information

**HP 8447A** Preamp  
**Opt 910:** Extra Operating and Service Manual (HP 8447A)  
**HP 8447D** Preamp  
**HP 8447E** Power Amp  
**HP 8447F** Preamp-Power Amp  
**Opt 910:** Extra Operating and Service Manual (HP 8447D/E/F)

### Specifications

	HP 8447A Preamp	HP 8447D Preamp	HP 8447E Power Amp	HP 8447F Preamp-Power Amp
Frequency Range	0.1-400 MHz	100 kHz-1.3 GHz	100 kHz-1.3 GHz	100 kHz-1.3 GHz
Typical 3 dB Bandwidth	50 kHz-700 MHz	75 kHz-1.7 GHz	75 kHz-2.0 GHz	50 kHz-1.4 GHz
Gain (Mean, per channel)	20 dB $\pm$ 1.0 dB at 10 MHz	>26 dB (20°C-30°C)	22 dB $\pm$ 1.5 dB (20°C-30°C)	
Gain Flatness Across Full Frequency Range	$\pm$ 0.7 dB	$\pm$ 1.5 dB	$\pm$ 1.5 dB	
Noise Figure	<6 dB	<8.5 dB	<11 dB typical	
Output Power for 1 dB Gain Compression	>+6 dBm	>+7 dBm typical	>+13.5 dBm <1 GHz	
Harmonic Distortion	-32 dB for 0 dBm output	-30 dB for 0 dBm output (typical)	-30 dB for +8 dBm output	
Typical Output for <-60 dB Harmonic Distortion	-25 dBm	-30 dBm	-20 dBm	
VSWR	<1.7	<2.0 input <2.5 output 1-1300 MHz	<2.2 input <2.5 output 1-1300 MHz	
Impedance	50 $\Omega$	50 $\Omega$	50 $\Omega$	
Reverse Isolation	>30 dB	>40 dB	>40 dB	
Maximum DC Voltage Input	$\pm$ 10 V	$\pm$ 10 V	$\pm$ 10 V	
Options Available	001	001, 010, 011	010	010
Option Prices	and \$600	and \$650, \$100, \$1000	and \$100	and \$395

← HP 8447D AND 8447E COMBINED IN A SINGLE PACKAGE →