

# WIDE BAND AMPLIFIERS

Low noise, flat response

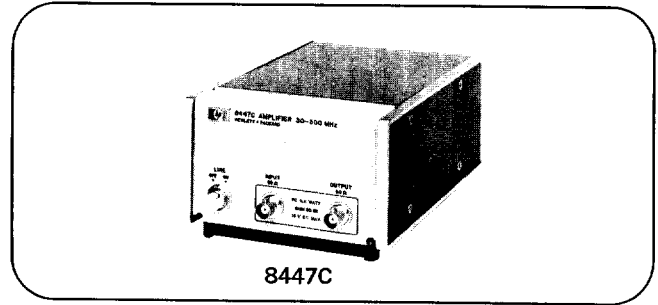
Models 8447A, 8447B, 8447C, 8447D, 8447E, 8447F



# AMPLIFIERS

Thin film hybrid integrated circuit amplifiers have been combined with fully regulated, solid state power supplies to form a series of general purpose amplifiers. The HP 8447 series of amplifiers embodies the inherently high reliability of integrated circuits and the convenience of a small, lightweight package.

The series features low noise and wide bandwidth. Flat frequency response and low distortion enhance the general utility of the amplifiers. Long term stability and reliability is assured by the use of microelectronic amplifier circuits.



8447C

## Specifications

	8447A Preamp	8447B Preamp	8447C Power Amp	8447D Preamp	8447E Power Amp	8447F Preamp- Power Amp
Frequency Range	0.1 - 400 MHz	0.4 - 1.3 GHz	30 - 300 MHz	100 kHz - 1.3 GHz	100 kHz - 1.3 GHz	100 kHz - 1.3 GHz
Typical 3 dB Bandwidth	50 kHz - 700 MHz	0.35 - 1.35 GHz	10 - 400 MHz	50 kHz - 1.4 GHz	50 kHz - 1.4 GHz	50 kHz - 1.4 GHz
Mean Gain	20 dB $\pm$ 0.5 dB at 10 MHz	> 20 dB 22 dB Typical	30 dB $\pm$ 1 dB	26 dB $\pm$ 1.5 dB (20° - 30°C)	22 dB $\pm$ 1.5 dB (20° - 30°C)	
Gain Flatness across full Frequency Range	$\pm$ 0.5 dB	$\pm$ 1.5 dB	$\pm$ 1 dB	$\pm$ 1.5 dB	$\pm$ 1.5 dB	
Noise Figure	< 5 dB	< 5 dB 0.4 - 1.0 GHz < 6 dB 1.0 - 1.3 GHz	< 11 dB	< 8.5 dB	< 11 dB Typical	
Output Power for 1 dB Gain Compression	> +7 dBm	> -3 dBm	> +17 dBm	> +7 dBm Typical	> +15 dBm	
Harmonic Distortion	-35 dB for 0 dBm output	-30 dB for -15 dBm output	-35 dB for +10 dBm output	-30 dB for 0 dBm output (typical)	-30 dB for +10 dBm output	
Typical Output for < -60 dB Harmonic Distortion	-25 dBm	-45 dBm	-15 dBm	-30 dBm	-20 dBm	
VSWR	< 1.7	< 2.0 Input < 2.2 Output	< 2.0	< 2.0 Input < 2.2 Output 1 - 1300 MHz	< 2.2 1 - 1300 MHz	
Impedance	50 $\Omega$	50 $\Omega$	50 $\Omega$ Opt 002 75 $\Omega$	50 $\Omega$	50 $\Omega$	
Reverse Isolation	> 30 dB	> 40 dB	> 35 dB	> 40 dB	> 40 dB	
Maximum DC Voltage Input	$\pm$ 10 V	$\pm$ 10 V	$\pm$ 10 V	$\pm$ 10 V	$\pm$ 10 V	

8447D AND 8447E COMBINE IN A SINGLE PACKAGE

## General

**Power requirements:** 110 or 230 V ac  $\pm$  10%, 48-400 Hz  
15 watts.

**Dimensions:** 8 1/2" (216 mm) deep by 5 1/8" (130 mm)  
wide by 3 3/8" (85,8 mm) high.

**Weight:** net, 3 lb, 7 oz (1,56 kg); shipping, 5 lb, 1 oz (2,30 kg).

**Price:** Model 8447A, \$550; Model 8447B, \$600; Model 8447C, \$450; Model 8447D, \$650; Model 8447E, \$700; Model 8447F, \$1175.

## Options Available

	Option 001 Dual Channel BNC Connectors	Option 010 Type N Connectors	Option 011 Dual Channel Type N Connectors	Option 002 75 $\Omega$ Input and Output Impedance
8447A	Add \$400	-	-	-
8447B	Add \$450	Add \$50	Add \$500	-
8447C	-	-	-	Add \$10
8447D	Add \$500	Add \$25	Add \$550	-
8447E	-	Add \$25	-	-
8447F	-	Add \$50	-	-