

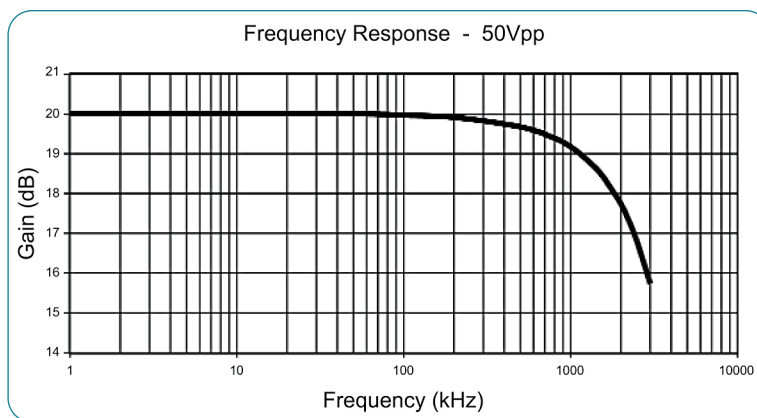
2.0 MHz Power Amplifier for Signal Generators

- Precise amplification and voltage stability
- ± 25 V with up to 750 mA of output current
- Bandwidth from DC to 2.0 MHz
- Full power bandwidth, from DC to 500 kHz
- Precision voltage monitor
- Compatible with most function, sweep, pulse, or arbitrary waveform generators
- 1-year warranty



Figure 1: No Load and Full Load Gain (dB) vs. Frequency (Typical)

Amplifier Gain measured at 50 Vp-p
Bandwidth 2.0 MHz (-3 dB cutoff).



Expand Your Signal Generation Limits

The Model 2348 is a compact but robust power amplifier designed for applications that require moderate voltage amplification and high current beyond the ranges of arbitrary, function, sweep, or pulse generators.

High Current Output

The 2348's current capabilities make it ideal as a buffer for signal generation devices used in solenoid or magnetic excitation. This unique amplifier meets requirements for MEMS testing, transducer characterization, and pulse applications. Its high voltage stability and low noise characteristics also meet the demands of mass spectrometry and related scientific applications.

A continuous current of 750 mA is available at voltages up to 50 Vp-p. This provides 18.75 W of AC or DC output power to 500 kHz. The instrument's bandwidth ranges from DC to 2.0 MHz.

All of this performance is packed into a compact, rack-mountable chassis no larger than a typical function generator.

Built in Protection

Output current is sensed in either polarity by the 2348's built in current limit function. The 2348 power amplifier is equipped with thermal shutoff to protect against overheating. This maximizes protection to the amplifier's circuitry in the event of an external fault.

The main output is isolated from ground. A binding post is provided on the front panel for a direct chassis ground connection.

Ideal for Your Test Application

An independent, buffered, voltage monitor output is provided for applications that require a low-level representation of the output signal such as in closed loop applications. The

monitor output reduces the output signal to 20:1 for 50 Ω inputs and 10:1 for inputs exceeding 1 M Ω .

The Model 2348 is a cost-effective solution for specialized applications where low distortion and precision is required.

The 2348 is ideally suited for high frequency, power applications that require voltage amplification with an abundant supply of current.

Contact TEGAM

Contact your local TEGAM representative to find out more about the 2348 power amplifier and our other signal amplification solutions.

Specifications

Electrical Specifications	
Number of Channels	1
Input Impedance	50 Ω Direct Coupled
Output Voltage Range	0 to ± 25 V Direct Coupled
Maximum Output Current	750 mA
Sine Wave Distortion (THD)	See Figure 2
Voltage Gain	+10 Fixed
Bandwidth	DC to 2 MHz, 50 Vp-p Full Load (-3 dB)
Full Power Bandwidth	DC to 500 kHz / 50 Vp-p / 750 mA Sine - Typical (-0.4 dB) (RL=33 Ω)
Slew Rate	>200 V/μs
Square Wave Response (10 %-90 %)	< 0.16 μs for 35 Volt Step RL=23 Ω - Typical
Aberrations	< 2 % 50 Ω Voltage Monitor Output 50 Ω Input Z (20:1 Ratio) > 1 MΩ Input Z (10:1 Ratio)
Environmental	
Operating Temperature	0 °C to +45 °C (+32 °F to +113 °F) Ambient
Storage Temperature	-20 °C to +50 °C (-4 °F to +122 °F)
Humidity Range	< 80 % RH Non-Condensing
General	
Input Supply Voltage	110/220 50/60 Hz – Rear Panel Selectable
Power Rating	100 VA; 80 W
Dimensions: (H x W x L)	4.51 in x 10.14 in x 11.81 in (11.5 x 25.8 x 30.0 cm)
Weight (approximate)	4.5 kg (10 lb)
Recommended Calibration Cycle	1 Year
Warranty	
1 Year Parts and Labor	
Included Accessories	
CD User's Manual	P/N 810049-CD
Power Cord	P/N 60014
Optional Accessories	
Rack Mount Kit	P/N 740532
Standard BNC Cable	P/N CBL-3102

Figure 2:
No Load and Full Load
% Distortion | 50 V p-p
 NOTE: % distortion will decrease
 as the input voltage is reduced.

