

ATA-2088 High Voltage Amplifier

- Maximum Output Voltage: 800 Vp-p (± 400 Vp)
- Bandwidth (-3dB): DC~500kHz
- Maximum Output Current: 50mA_p
- 10mV/V Voltage Monitoring
- 20V/A Current Monitoring



INTRODUCTION

The ATA-2088 is an ideal single-channel high-voltage amplifier capable of amplifying both AC and DC signals. It delivers a maximum output of 800 Vp-p (± 400 Vp), Maximum bandwidth: 500 MHz. The input and output impedance can be switched between two levels. The digitally adjustable voltage gain allows precise tuning, with one-click saving of common settings. The device features program control functionality, offering simple and convenient operation. It can be used with signal generators for seamless signal amplification.

LCD PANEL DISPLAY

The LCD panel display dynamically shows the device status and parameters, offering a clear and intuitive interface.

VOLTAGE GAIN

The voltage gain is digitally adjustable from 0~120x, with two modes: coarse adjustment (1 step) and fine adjustment (0.1 step). Combined with the LCD panel display, it enables quick and precise adjustment to the desired voltage value.

INPUT

The input uses a BNC interface with selectable impedance of 50 Ω or 10k Ω , perfectly matching both high and low impedance signal sources.

OUTPUT

The output uses banana sockets, with a maximum output voltage of 800 Vp-p (± 400 Vp) and a maximum output current of 50 mA_p.

MONITORING PORTS

10mV/V Monitor: This port voltage is 1/100 of the output port voltage. The monitoring port uses a BNC connector and can be directly connected to an oscilloscope for real-time monitoring of the output voltage.

20V/A Monitor: The monitoring port voltage is 20 times the output current. The monitoring port uses a BNC connector and can be directly connected to an oscilloscope for real-time monitoring of the output current.

Applications

Piezoelectric Ceramic Driving; Electromagnetic Field Driving; Electro-Optic Modulator Driving; MEMS Testing; Microfluidic Testing



Specifications

Model	ATA-2088
Number of Channel	1
Output Type	Single-ended Output
Bandwidth (-3 dB)	DC~500kHz
Maximum Output Voltage	800Vp-p ($\pm 400\text{Vp}$)
Maximum Output Current	25mA _p (DC~50Hz) 50mA _p ($> 50\text{Hz}$)
Maximum Output Power	20W _p
Voltage Gain	x0~120 (0.1step/1step)
Load RL Upper Limit	$\geq 15.9\text{k}\Omega$ (DC~50Hz) $\geq 7.9\text{k}\Omega$ ($> 50\text{Hz}$)
Output Impedance	100 Ω /5k Ω
Slew Rate	$\geq 888.4\text{V}/\mu\text{s}$
Input Impedance	50 Ω / 10k Ω
Input Amplitude	0~10 Vp-p MAX
Output Voltage Error	$\leq \pm 3\%$ FS @ 1 kHz
Voltage Monitoring	10mV/V($\pm 5\%$ @Output,FS)
Current Monitoring	20V/A($\pm 5\%$ @Output,FS)
Total Harmonic Distortion (THD)	$\leq 0.1\%$ @1kHz, 100Vp-p
Output Voltage Drift	$\leq \pm 0.3\text{V}$
Signal-to-Noise Ratio	$\geq 80\text{dB}$
Output Interface	4mm Banana socket
Fuse	2A/250V
Protection	Over Current Protection
Signal Ground	Connected to chassis and power line ground

Others

Power Supply Voltage	AC220V $\pm 10\%$, 50Hz
Operating Temperature	0°C ~ 45°C
Storage Temperature	-20°C ~ 50°C
Working Humidity	$\leq 80\%$ RH, non-condensing
Warranty	1 year
Dimensions	366*164*369mm (W*H*D)

Ordering Information

Model	ATA-2088 Single Channel High Voltage Amplifier
Accessories	Power cable*1, BNC cable*3, red-black output cable*1 set, USB cable*1, fuse*1, user manual, usage guide, product qualification certificate, calibration certificate, and packing list (one copy each).
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