ATA-2042 High Voltage Amplifier

- Dual Channel
- Maximum Output Voltage: 400 Vp-p (±200 Vp)
- Maximum Output Current: 100mAp
- Bandwidth (-3dB): DC~500kHz
- Slew Rate: ⩾445 V/μs

INTRODUCTION

The ATA-2042 is an ideal dual-channel high-voltage amplifier capable of amplifying both AC and DC signals. It delivers a maximum output of 400 Vp-p (±200 Vp), suitable for driving high-voltage loads. The digitally adjustable voltage gain allows precise tuning, with one-click saving of common settings, offering a simple and user-friendly operation. It is compatible with mainstream 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 0~60x, 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 50Ω or 5kΩ, perfectly matching both high and low impedance signal sources.

OUTPUT

The output uses banana sockets, with a maximum output voltage of 400 Vp-p (±200 Vp) and a maximum output current of 100 mAp.

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.

10V/A Monitor: The monitoring port voltage is 10 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.

Specifications

Model	ATA-2042
Number of Channel	2
Output Type	Single-ended Output
Bandwidth (-3 dB)	DC~500kHz
Maximum Output Voltage	400Vp-p (±200Vp)
Maximum Output Current	50mAp (DC~50Hz) 100mAp (＞50Hz)
Maximum Output Power	20Wp
Voltage Gain	x0~60 (0.1step/1step)
Load RL Upper Limit	≥3.95kΩ (DC~50Hz) ≥ 1.95kΩ (＞50Hz)
Output Impedance	50Ω/2.5kΩ
Slew Rate	≥ 445V/μs
Input Impedance	50Ω / 5kΩ
Input Amplitude	0~10 Vp-p MAX
Output Voltage Error	≤ ±3% FS @ 1 kHz
Voltage Monitoring	10mV/V(±5%@Output,FS)
Current Monitoring	10V/A(±5%@Output,FS)
Total Harmonic Distortion (THD)	≤ 0.1%@1kHz, 100Vp-p
Output Voltage Drift	≤ ±0.3V
Signal-to-Noise Ratio	≥ 80dB
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±10%, 50Hz
Operating Temperature	0℃ ~ 45℃
Storage Temperature	-20℃ ~ 50℃
Working Humidity	≤ 80% RH, non-condensing
Warranty	1 year
Dimensions	366*164*369mm (W*H*D)

Ordering Information

Model	ATA-2042 Dual Channel High Voltage Amplifier
Accessories	Power cable*1, BNC cable*6, red-black output cable*2 sets, USB cable*1, fuse*1, user manual, usage guide, product qualification certificate, calibration certificate, and packing list (one copy each).
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