

ATA-4315 High Voltage Power Amplifier

- Maximum Output Voltage: 150Vp-p (± 75 Vp)
- Maximum Output Current: 1.41Ap
- Bandwidth (-3dB): DC~3MHz
- DC Bias Voltage: ± 75 V
- Slew Rate: $\geq 1000\text{V}/\mu\text{s}$



INTRODUCTION

The ATA-4315 is an ideal single-channel high-voltage power amplifier capable of amplifying both AC and DC signals. The device delivers a maximum output voltage of 150Vp-p (± 75 Vp) and a maximum output power of 105 Wp, making it suitable for driving high-voltage power 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 x0 to x50, 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 1k Ω , perfectly matching both high and low impedance signal sources.

OUTPUT

The output uses a BNC interface with a maximum output voltage of 150 Vp-p (± 75 Vp) and a maximum output current of 1.41 Ap.

The output cable is matched with BNC radio frequency coaxial cables to reduce signal attenuation during high-frequency operation.

MONITORING PORTS

1/100 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.

Specifications

Model	ATA-4315
Output Type	Single-ended Output
Bandwidth (-3 dB)	DC~3MHz
Maximum Output Voltage	150Vp-p(± 75 Vp)
Maximum Output Current	0.5Ap (DC~50Hz) 1.41Ap, 1Arms (>50Hz)
Maximum Output Power	105.7Wp
Fuse	5A/250V
Voltage Gain	x0~50 (0.1step/1step)
Load RL Upper Limit	$\geq 149.5\Omega$ (DC~50 Hz) $\geq 52.7\Omega$ (>50Hz)
Output Impedance	$0.5\Omega + 1.2\mu\text{H}$
Slew Rate	$\geq 1000\text{V}/\mu\text{s}$
DC Bias Adjustment	$\pm 75\text{V}$ (0.1V step/1V step)
Input Impedance	$50\Omega/1\text{k}\Omega$
Input Amplitude	0~10 Vp-p MAX
Output Voltage Error	$\leq \pm 3\%$ FS @ 1 kHz
Voltage Monitoring	100:1($\pm 5\%$ @Output,FS)
Total Harmonic Distortion (THD)	$\leq 0.1\%$ @1kHz,100Vp-p
Output Voltage Drift	$\leq \pm 0.1\text{V}$
Signal-to-Noise Ratio	$\geq 80\text{dB}$
Output Interface	BNC
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	442*164*474mm (W*H*D)

Ordering Information

Model	ATA-4315 High Voltage Power Amplifier
Accessories	Power cable*1, BNC cable*2, White BNC Cable*1, USB cable*1, fuse*1, user manual, usage guide, product qualification certificate, calibration certificate, and packing list (one copy each).
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