ATA-7050B High Voltage Amplifier

- Bandwidth (-3dB): DC~5kHz
- Maximum Output Voltage: 10kVp-p (±5kVp)
- Maximum Output Current: 20mAp
- Slew Rate: ⩾111V/μs
- Short Circuit Protection, Over Current Protection

INTRODUCTION

The ATA-7050B is an ideal high voltage amplifier capable of amplifying both AC and DC signals.It features four-quadrant output with a maximum voltage of 10kVp-p (±5kVp), and can stably provide both positive and negative voltage and current to drive capacitive or inductive loads.

CONTROL

The high-voltage output is controlled via a dedicated output switch in conjunction with a BNC enable connector.

When the BNC shorting cap is connected, the device is in the output ON state. When the BNC shorting cap is removed, the device is in the output OFF state, and the control panel displays UNABLE OUTPUT_OFF.

VOLTAGE GAIN

Voltage gain can be digitally adjusted in 1step or 10step increments. One-click saving of commonly used settings makes operation more convenient and user-friendly. Combined with the gain display on the LCD panel, the voltage can be quickly and precisely adjusted as needed.

OUTPUT PROTECTION

In the single-shot protection output mode, even if the output is short-circuited due to load breakdown, the device will cut off the output, making it highly suitable for capacitive loads or application scenarios with large current fluctuations.

DYNAMIC RESPONSE ADJUSTMENT

Dynamic adjustment using a one-turn rotary panel potentiometer optimizes AC response for various load parameters.

APPLICATIONS

Material Polarization / Dielectric Elastomers /Plasma / Electrostatic Deflection / Electrohydrodynamic Printing / High Voltage Cable Testing / Electrophotography / Laser Modulation

Specifications

Model	ATA-7050B
Number of Channels	1
Output Type	Single-ended Output
Bandwidth (-3 dB)	DC~5kHz
Maximum Output Voltage	10kVp-p(±5kVp)
Maximum Output Current	10mAp (DC~50Hz) 20mAp (>50Hz)
Maximum Output Power	100Wp
Fuse	4 A/250V
Voltage Gain	x0~2000 (1step/10step)
Load RL Upper Limit	≥ 495kΩ (DC~50 Hz) ⩾ 245kΩ (>50Hz)
Input Impedance	10kΩ
Output Impedance	5kΩ
Slew Rate	≥ 111 V/μs
DC Bias Adjustment	±5000V (1V step/10V step)
Output Voltage Error	≤ ±3% @(DC, 5kV)
Voltage Monitoring	1mV/V (±5%@Output, FS)
Current Monitoring	100V/A (±5%@Output, FS)
Input Amplitude	0~10 Vp-p MAX
Total Harmonic Distortion (THD)	≤ 1%@1kHz, 8kVp-p
Output Voltage Zero Drift	≤ ±1V
Output Interface	High Voltage connector
Program Control Interface	USB
Output Protection	Short Circuit Protection, Over Current Protection
Protection Mode	Single Shot Protection
Signal Ground	Connected to chassis and power line ground

Others

Power Supply Voltage	AC110~240V, 50/60Hz
Operating Temperature	0℃ ~ 45℃
Storage Temperature	-20℃ ~ 50℃
Working Humidity	≤ 80% RH, non-condensing
Warranty	1 year
Dimensions	440*194*634mm (W*H*D)

Ordering Information

Model	ATA-7050B Single Channel High Voltage Amplifier
Accessories	Power cable*1, BNC cable*3, Cross-shaped high voltage output cable*1 set, USB cable*1, fuse*1, Ceramic Non-inductive Tuning Tool*1, user manual, usage guide, product qualification certificate, calibration certificate, and packing list (one copy each).
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