

## ATA-7000 Series High Voltage Amplifier

Maximum output voltage 6kVp-p

Voltage gain adjustable by numerical control (1step/10 step)

Over current and over temperature protection



## Technical Index

Bandwidth (-3dB) DC~100KHz

Output voltage up to 6kVp-p ( $\pm 3$ kVp)

Maximum output current 40mA<sub>p</sub> (higher current can be customized)

## Introduction

ATA-7000 series is an ideal high voltage amplifier that can amplify AC and DC signals. The Single output is 6kVp-p ( $\pm 3$ kVp) high voltage, which can drive high-voltage load. The voltage gain can be adjusted by numerical control, and the common settings can be saved with one click.

Model	ATA-7010	ATA-7015
Form of output	Single output	Single output
Bandwidth (-3dB)	DC~100KHz	DC~80KHz
Maximum output voltage	2kVp-p ( $\pm 1$ kVp)	3kVp-p ( $\pm 1.5$ kVp)
Maximum output current	20mA <sub>p</sub> (DC~50Hz)	20mA <sub>p</sub> (DC~50Hz)
	40mA <sub>p</sub> (>50Hz)	40mA <sub>p</sub> (>50Hz)
Maximum output power	40W <sub>p</sub>	60W <sub>p</sub>
Fuse	3A/250V	4A/250V
Voltage gain	x0~1000 (1 step/10 step)	x0~1000 (1 step/10 step)
Load R <sub>L</sub> upper limit	$\geq 49.5$ k $\Omega$ (DC~50Hz)	$\geq 74.5$ k $\Omega$ (DC~50Hz)
	$\geq 24.5$ k $\Omega$ (>50Hz)	$\geq 37$ k $\Omega$ (>50Hz)
Output resistance	500 $\Omega$	500 $\Omega$
Slew rate	$\geq 445$ V/ $\mu$ s	$\geq 534$ V/ $\mu$ s
Output voltage error	$\leq \pm 1\%$ @ (DC,1kV)	$\leq \pm 1\%$ @ (DC,1.5kV)
Input resistance	10k $\Omega$	
Voltage monitoring	1000: 1	
Input amplitude	0~10Vp-pMAX	
Total harmonic distortion (THD)	$\leq 1\%$ @1kHz, 1kVp-p	

## Xi'an Aigtek Electronic Technology Co., Ltd.

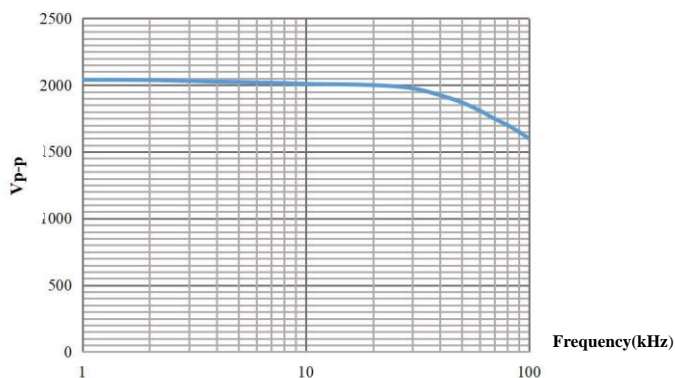
Output voltage zero drift	$\leq \pm 1V$
Output connector	SHV RF connector
Protection	Overcurrent protection
Signal ground	Ground connected with the case and the power line
Supply voltage	AC220V $\pm$ 10%, 50Hz
Operating temperature	0°C~45°C
Storage temperature	-20°C~50°C
Humidity	$\leq$ 80%RH, no condensation
Size (W * H * D)	440*163*565mm

Model	ATA-7020	ATA-7025	ATA-7030
Form of output	Single output	Single output	Single output
Bandwidth (-3dB)	DC~30KHz	DC~10KHz	DC~5KHz
Maximum output voltage	4kVp-p ( $\pm$ 2kVp)	5kVp-p ( $\pm$ 2.5kVp)	6kVp-p ( $\pm$ 3kVp)
Maximum output current	15mA <sub>p</sub> (DC~50Hz)	15mA <sub>p</sub> (DC~50Hz)	15mA <sub>p</sub> (DC~50Hz)
	30mA <sub>p</sub> (>50Hz)	30mA <sub>p</sub> (>50Hz)	30mA <sub>p</sub> (>50Hz)
Maximum output power	60W <sub>p</sub>	75W <sub>p</sub>	90W <sub>p</sub>
Fuse	4A/250V	4A/250V	4A/250V
Voltage gain	x0~1000 (1 step/10 step)	x0~1000 (1 step/10 step)	x0~1000 (1 step/10 step)
Load R <sub>L</sub> upper limit	$\geq$ 132.33k $\Omega$ (DC~50Hz)	$\geq$ 165.17k $\Omega$ (DC~50Hz)	$\geq$ 198.5k $\Omega$ (DC~50Hz)
	$\geq$ 65.67k $\Omega$ (>50Hz)	$\geq$ 81.8k $\Omega$ (>50Hz)	$\geq$ 98.5k $\Omega$ (>50Hz)
Output resistance	1k $\Omega$	1.5k $\Omega$	1.5k $\Omega$
Slew rate	$\geq$ 267V/ $\mu$ s	$\geq$ 112V/ $\mu$ s	$\geq$ 67V/ $\mu$ s
Output voltage error	$\leq \pm 1\%$ @ (DC,2kV)	$\leq \pm 1\%$ @ (DC,2.5kV)	$\leq \pm 1\%$ @ (DC,3kV)
Input resistance	10k $\Omega$		
Voltage monitoring	1000: 1		
Input amplitude	0~10Vp-pMAX		
Total harmonic distortion (THD)	$\leq$ 1%@1kHz, 1kVp-p		
Output voltage zero drift	$\leq \pm 1V$		
Output Connector	SHV RF connector		
Protection	Overcurrent protection		
Signal ground	Ground connected with the case and the power line		
Supply voltage	AC220V $\pm$ 10%, 50Hz		

## Xi'an Aigtek Electronic Technology Co., Ltd.

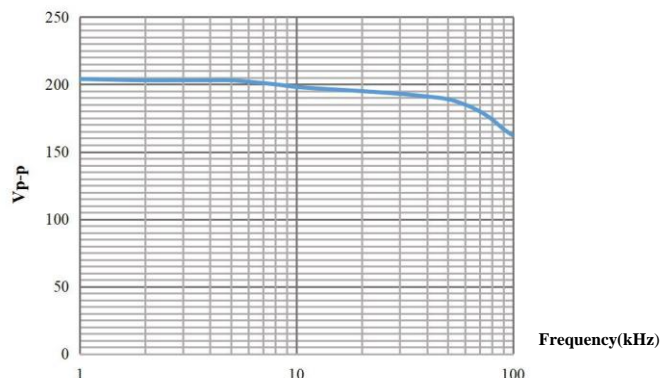
Operating temperature	0°C~45°C
Storage temperature	-20°C~50°C
Humidity	≤80%RH, no condensation
Size (W * H * D)	440*163*565mm

### ATA-7010



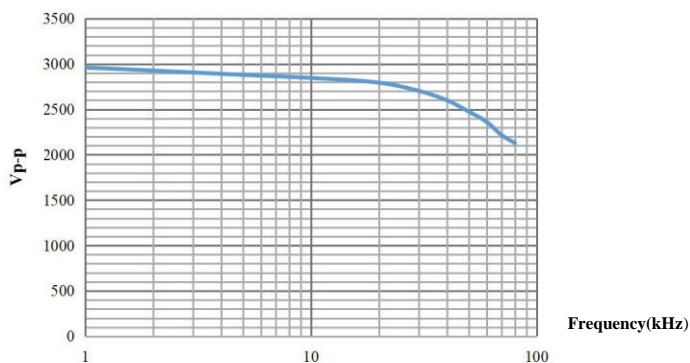
Amplitude-frequency characteristic  
(Maximum output voltage  $V_{p-p}$ )

### ATA-7010



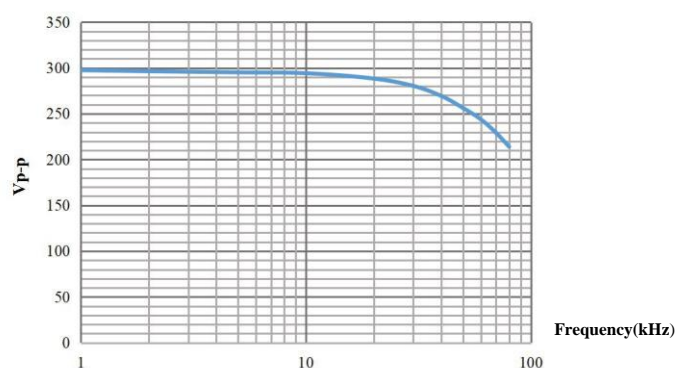
Small signal amplitude-frequency characteristic

### ATA-7015



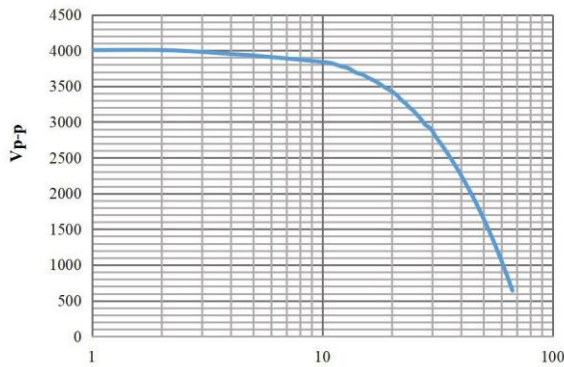
Amplitude-frequency characteristic  
(Maximum output voltage  $V_{p-p}$ )

### ATA-7015



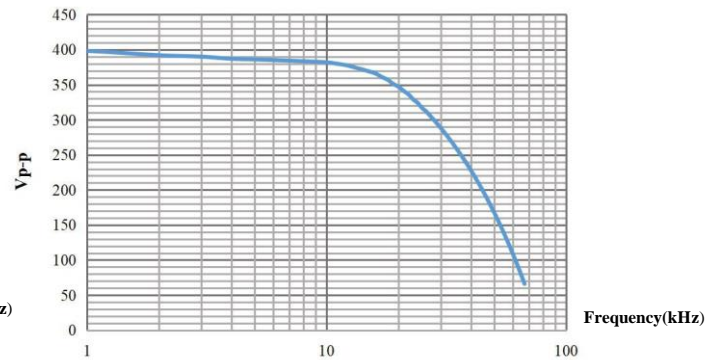
Small signal amplitude-frequency characteristic

ATA-7020



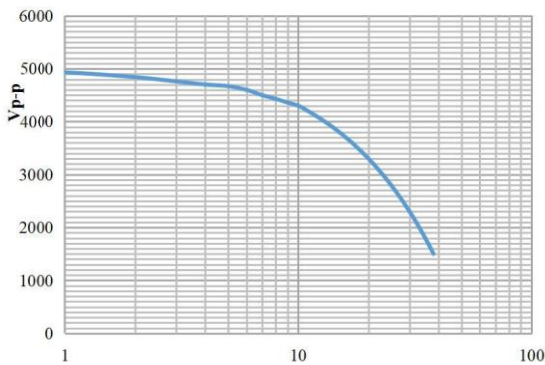
Amplitude-frequency characteristic  
(Maximum output voltage V<sub>p-p</sub>)

ATA-7020



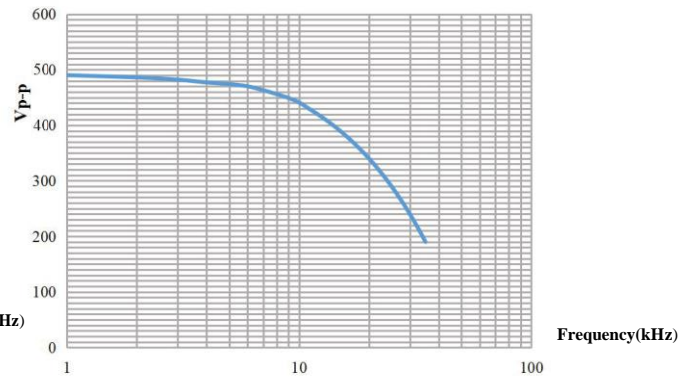
Small signal amplitude-frequency characteristic

ATA-7025



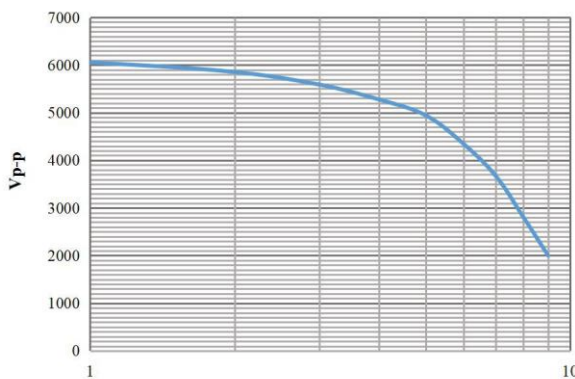
Amplitude-frequency characteristic  
(Maximum output voltage V<sub>p-p</sub>)

ATA-7025



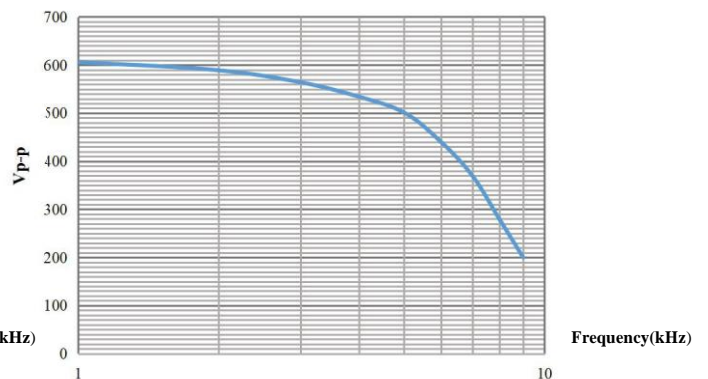
Small signal amplitude-frequency characteristic

ATA-7030



Amplitude-frequency characteristic  
(Maximum output voltage V<sub>p-p</sub>)

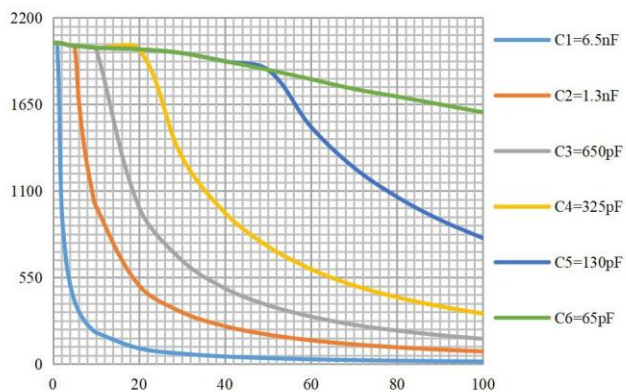
ATA-7030



Small signal amplitude-frequency characteristic

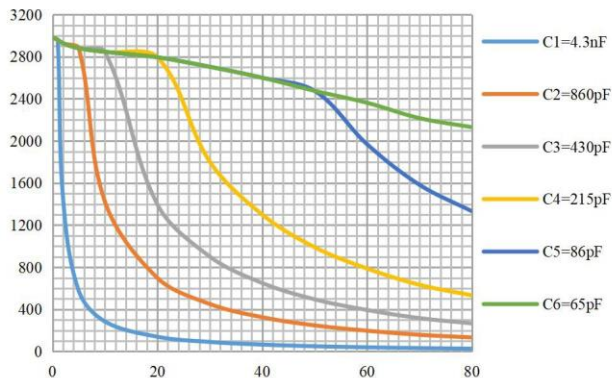


### ATA-7010



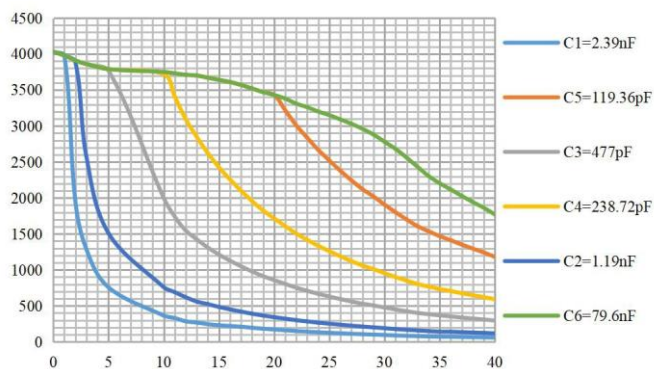
ATA-7010 Capacitive loads curve

### ATA-7015



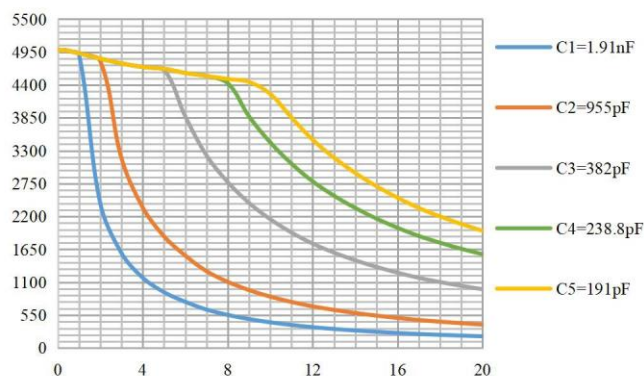
ATA-7015 Capacitive loads curve

### ATA-7020



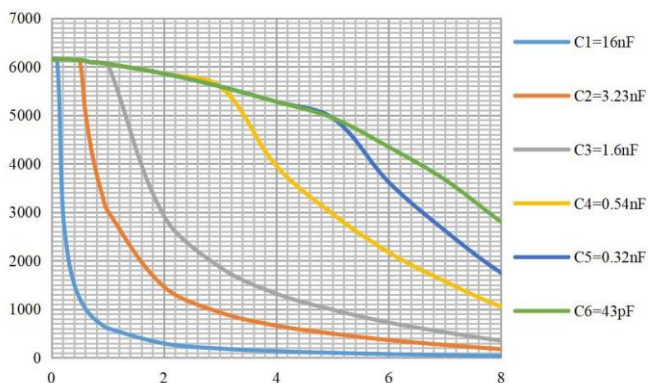
ATA-7020 Capacitive loads curve

### ATA-7025



ATA-7025 Capacitive loads curve

### ATA-7030



ATA-7030 Capacitive loads curve