

## ATA-4000 High Voltage Power Amplifier

High voltage, high power

Input and output resistance adjustable

The voltage gain is roughly adjusted by 1 times of step and fine by 0.1 times of step

DC bias 0.1V step adjustable

Monitor 100:1



## Technical Index

Bandwidth (-3dB) up to DC~1MHz

Output voltage up to 310Vp-p ( $\pm 155$ Vp)

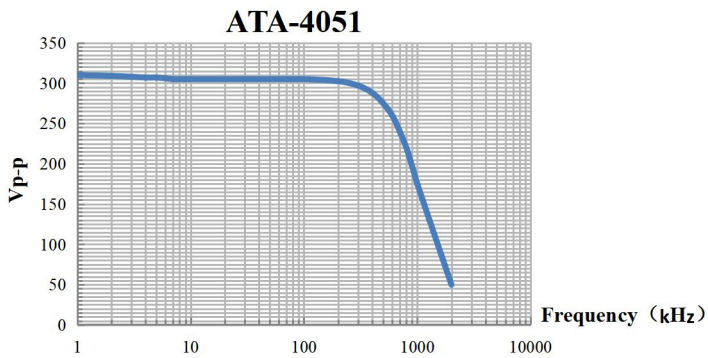
Maximum output current 4Arms

## Introduction

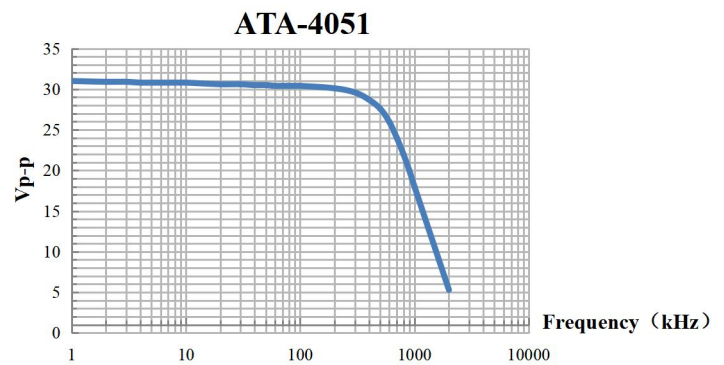
ATA-4000 series is an ideal high voltage power amplifier that can amplify AC and DC signals. The maximum output voltage of 310Vp-p( $\pm 155$ Vp) and 452Wp power can drive high-voltage power load. Voltage gain and DC bias are fine adjustable, providing customers with rich test options.

Model	ATA-4011	ATA-4012	ATA-4014	ATA-4051	ATA-4052
Output form	Single output	Single output	Single output	Single output	Single output
Bandwidth (-3dB)	DC~1MHz	DC~1MHz	DC~1MHz	DC~500kHz	DC~500kHz
Maximum output voltage	160Vp-p( $\pm 80$ Vp)	160Vp-p( $\pm 80$ Vp)	160Vp-p( $\pm 80$ Vp)	310Vp-p( $\pm 155$ Vp)	310Vp-p( $\pm 155$ Vp)
Maximum output current	0.75Ap(DC-50Hz)	1Ap(DC-50Hz)	2Ap(DC-50Hz)	0.5Ap(DC-50Hz)	1Ap(DC-50Hz)
	1.41Ap, 1Arms (50Hz~1MHz)	2.82Ap, 2Arms (50Hz~1MHz)	5.65Ap, 4Arms (50Hz~1MHz)	1.41Ap, 1Arms (50Hz~500kHz)	2.82Ap, 2Arms (50Hz~500kHz)
Maximum output power	112.8Wp	225.6Wp	452Wp	218.55Wp	437.1Wp
Fuse	5A/250V	8A/250V	8A/250V	8A/250V	10A/250V
Voltage gain	x0~50(0.1step)	x0~50(0.1step)	x0~50(0.1step)	x0~100(0.1step)	x0~100(0.1step)
Load $R_L$ upper limit	$\geq 56.6\Omega$ (above 50Hz)	$\geq 28.3\Omega$ (above 50Hz)	$\geq 14.1\Omega$ (above 50Hz)	$\geq 109.6\Omega$ (above 50Hz)	$\geq 54.8\Omega$ (above 50Hz)
Output impedance	$1\Omega + 2\mu\text{H}$	$0.5\Omega + 1.2\mu\text{H}$	$0.25\Omega + 0.6\mu\text{H}$	$1\Omega + 3.2\mu\text{H}$	$0.5\Omega + 1.6\mu\text{H}$
Slew Rate	400V/ $\mu\text{s}$	400V/ $\mu\text{s}$	400V/ $\mu\text{s}$	400V/ $\mu\text{s}$	400V/ $\mu\text{s}$
DC bias	$\pm 75\text{V}(0.1\text{Vstep})$	$\pm 75\text{V}(0.1\text{Vstep})$	$\pm 75\text{V}(0.1\text{Vstep})$	$\pm 150\text{V}(0.1\text{Vstep})$	$\pm 150\text{V}(0.1\text{Vstep})$
Input impedance	50 $\Omega$ / 5k $\Omega$				
Input amplitude	0~10Vp-pMAX				
Output voltage error	$\leq \pm 3\%FS@1\text{kHz}$				
Voltage monitoring	100:1 ( $\pm 5\%$ )				
Total harmonic distortion (THD)	$\leq 0.1\%@1\text{kHz}$ , 100Vp-p				

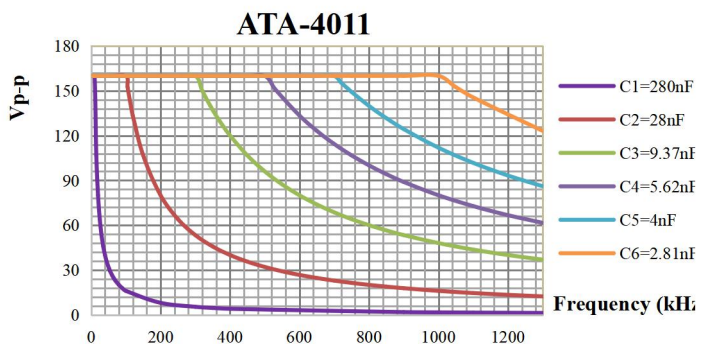
Output voltage zero-point drift	$\leq 0.1V$				
Output Connector	4mm Banana socket				
Protection	Overcurrent protection				
Signal Ground	It is connected with the grounding of the shell and the power line				
Supply voltage	AC220V $\pm$ 10%, 50Hz				
Operating temperature	0 $^{\circ}$ C~45 $^{\circ}$ C				
Storage temperature	-20 $^{\circ}$ C~50 $^{\circ}$ C				
Humidity	$\leq 80\%$ RH, no condensation				
Size(W * H * D)	440*163*470mm	440*163*470mm	440*163*470mm	440*163*470mm	440*290*470mm



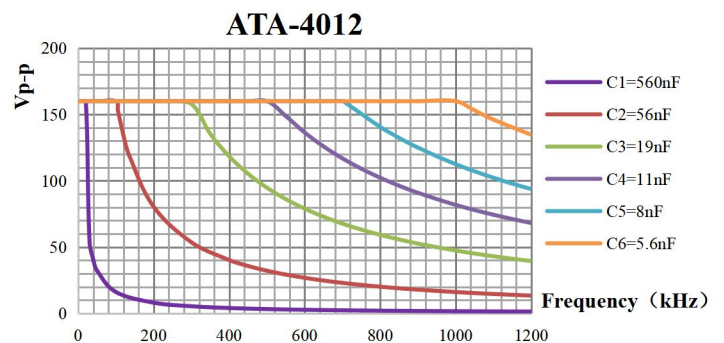
(1)Amplitude-frequency characteristic  
(maximum output voltage Vp-p)



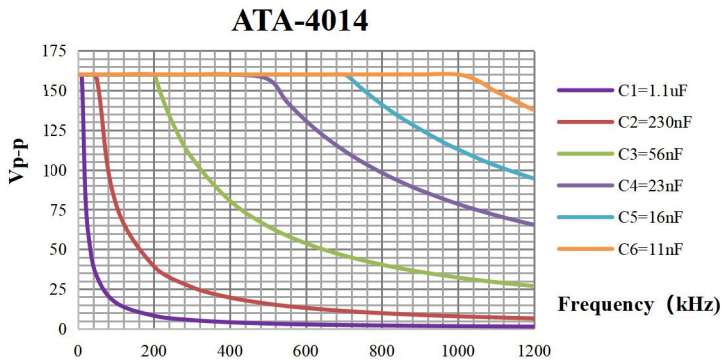
(2)Small signal amplitude-frequency characteristic



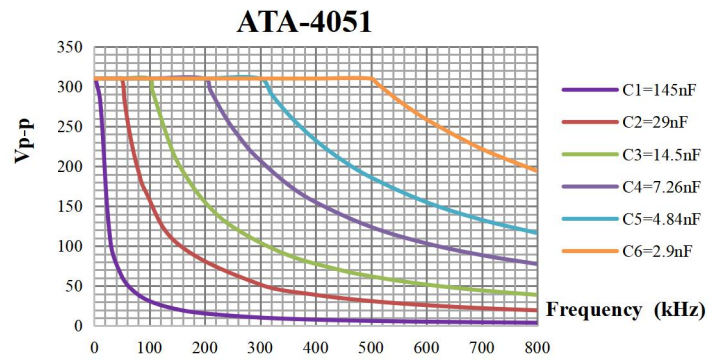
(3)ATA-4011 Capacitive loads curve



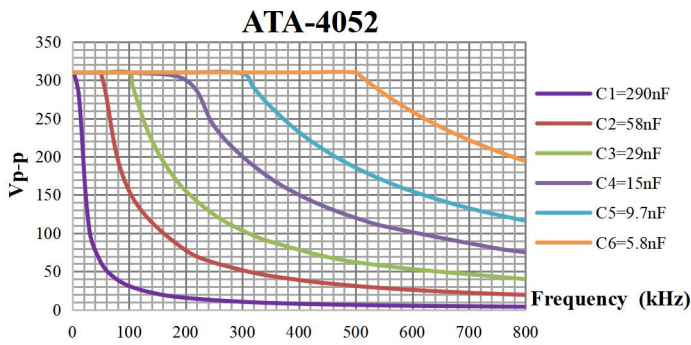
(4)ATA-4012 Capacitive loads curve



(5)ATA-4014 Capacitive loads curve



(6)ATA-4051Capacitive loads curve



(7)ATA-4052 Capacitive loads curve

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