

ATA-2000 Series High Voltage Amplifier



High voltage, multichannel (synchronous output)

Input and output resistance adjustable

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

Monitoring port 100:1

Technical Index

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

Output voltage up to 1600 Vp-p (± 800 Vp)

Maximum output current 500mA (higher current can be customized)

Introduction

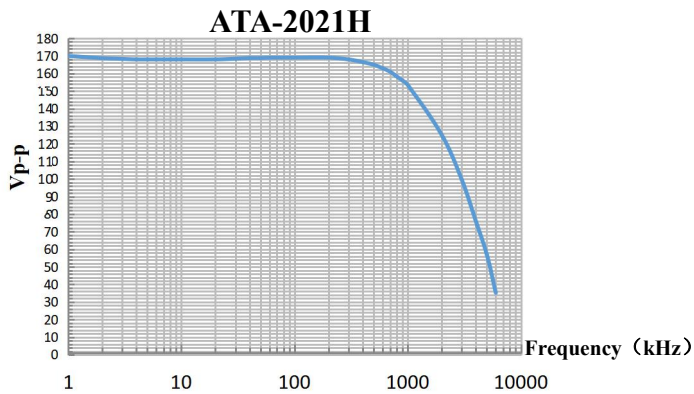
ATA-2000 series is an ideal high voltage amplifier that can amplify AC and DC signals. The maximum differential output is 1600 Vp-p (± 800 Vp) high voltage, which can drive high-voltage load. The voltage gain can be adjusted by numerical control, and the common settings can be saved by one key. At the same time, the output of dual channel high-voltage amplifier can also be adjusted synchronously, which can be used with mainstream signal generator to realize perfect signal amplification.

Model	ATA-2021H	ATA-2022H	ATA-2031	ATA-2032
Number of channels	1	2	1	2
Output form	Single output		Single output	
Bandwidth (-3dB)	DC~1MHz		DC~500kHz	
Maximum output voltage	200Vp-p (± 100 Vp)		300Vp-p (± 150 Vp)	
Maximum output current	500mA		120mA	
Maximum output power	50Wp		18Wp	
Fuse	2A/250V	5A/250V	2A/250V	
Voltage gain	x0~60 (0.1 step)		x0~50 (0.1 step)	
Load R_L upper limit	$\geq 200\Omega$		$\geq 1.25k\Omega$	
Output resistance	5 Ω /1k Ω (Customizable)		50 Ω /2.5k Ω (Customizable)	
Input resistance	50 Ω / 5k Ω			
Input amplitude	0~10Vp-pMAX			
Output voltage error	$\leq \pm 3\%$ FS@1kHz			
Voltage monitoring	100:1 ($\pm 5\%$)			
Slew Rate	500V/ μ s			

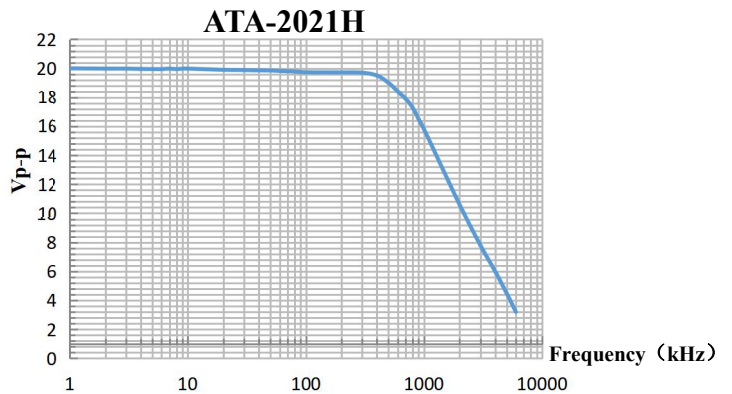
Total harmonic distortion (THD)	$\leq 0.1\% @ 1\text{kHz}, 100\text{Vp-p}$			
Output voltage Zero-point drift	$\leq 0.1\text{V}$			
Signal-noise ratio(SNR)	$\geq 80\text{dB}$			
Output Connector	4mm Banana socket			
Protection	Overcurrent protection			
Signal Ground	It is connected with the grounding of the shell and the power line			
Supply voltage	AC220V $\pm 10\%$, 50Hz			
Operating temperature	0°C~45°C			
Storage temperature	-20°C~50°C			
Humidity	$\leq 80\% \text{RH}$, No condensation			
Size (W * H * D)	365*163*365mm	440*163*470mm	365*163*365mm	365*163*365mm

Model	ATA-2041	ATA-2042	ATA-2081	ATA-2082	ATA-2161
Number of channels	1	2	1	2	1
Output form	Single output		Single output		Differential output
Bandwidth (-3dB)	DC~500kHz		DC~200kHz		DC~150kHz
Maximum output voltage	400Vp-p ($\pm 200\text{Vp}$)		800Vp-p ($\pm 400\text{Vp}$)		1600Vp-p ($\pm 800\text{Vp}$)
Maximum output current	100mA _p		40mA _p		40mA _p
Maximum output power	20W _p		16W _p		32W _p
Voltage gain	x0~60 (0.1 step)		x0~120 (0.1 step)		x0~240 (0.1 step)
Load R _L upper limit	$\geq 2\text{k}\Omega$		$\geq 10\text{k}\Omega$		$\geq 20\text{k}\Omega$
Output resistance	50Ω /2.5kΩ (Customizable)		100Ω /5kΩ (Customizable)		200Ω /10kΩ (Customizable)
Slew Rate	500V/μs		400V/μs		600V/μs
Input resistance	50Ω / 5kΩ				
Input amplitude	0~10Vp-pMAX				
Output voltage error	$\leq \pm 3\% \text{FS} @ 1\text{kHz}$				
Voltage monitoring	100:1 ($\pm 5\%$)				
Total harmonic distortion (THD)	$\leq 0.1\% @ 1\text{kHz}, 100\text{Vp-p}$				
Output voltage zero-point drift	$\leq 0.3\text{V}$				
Signal-noise ratio(SNR)	$\geq 80\text{dB}$				
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				

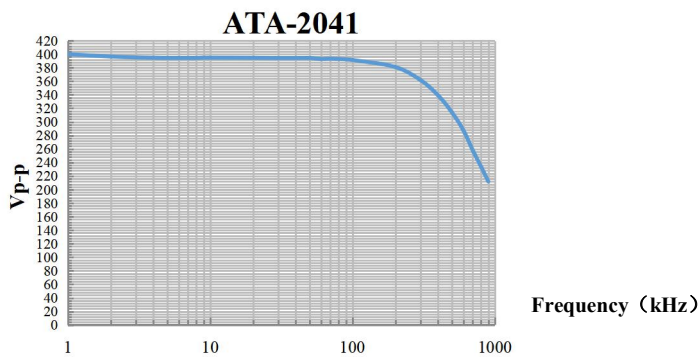
Fuse	2A/250V
Operating temperature	0°C~45°C
Storage temperature	-20°C~50°C
Humidity	80%RH, no condensation
Size (W * H * D)	365*163*365mm



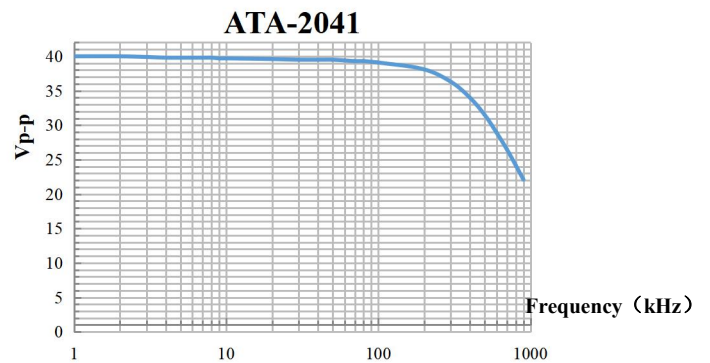
(1)Amplitude-frequency characteristic
(Maximum output voltage Vp-p)



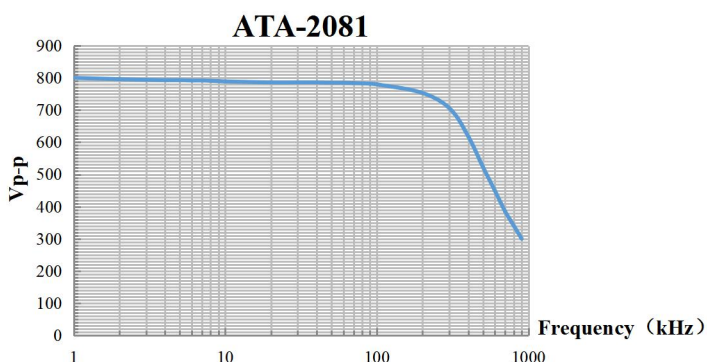
(2)Small signal amplitude-frequency characteristic



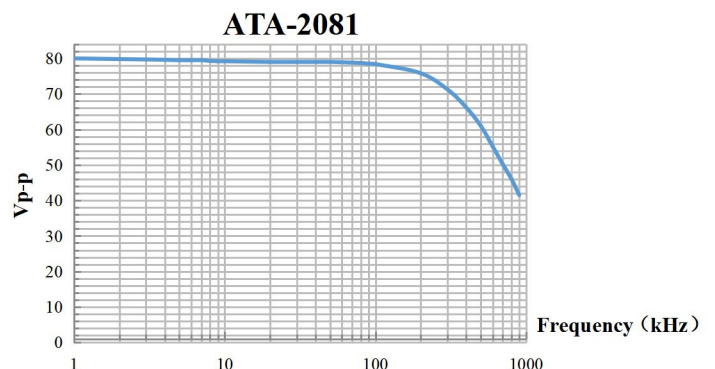
(3)Amplitude-frequency characteristic
(Maximum output voltage Vp-p)



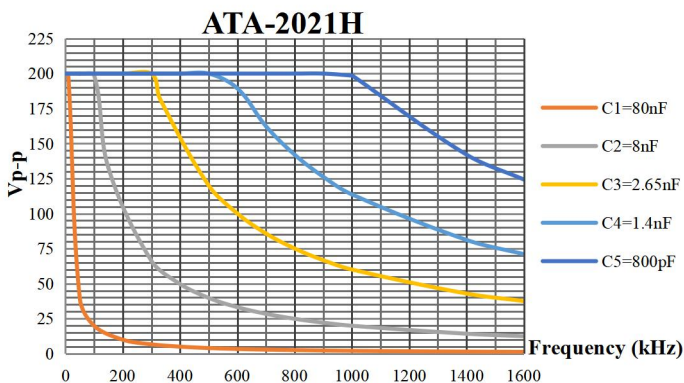
(4)Small signal amplitude-frequency characteristic



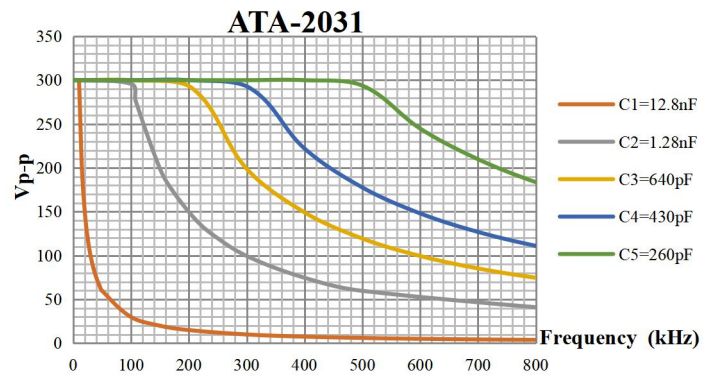
(5)Amplitude-frequency characteristic (Max Vpp)



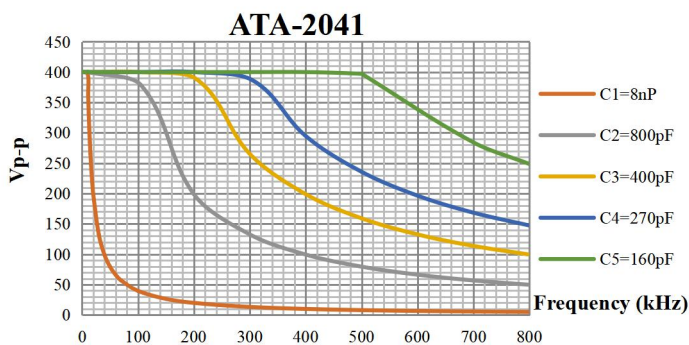
(6)Small signal amplitude-frequency characteristic



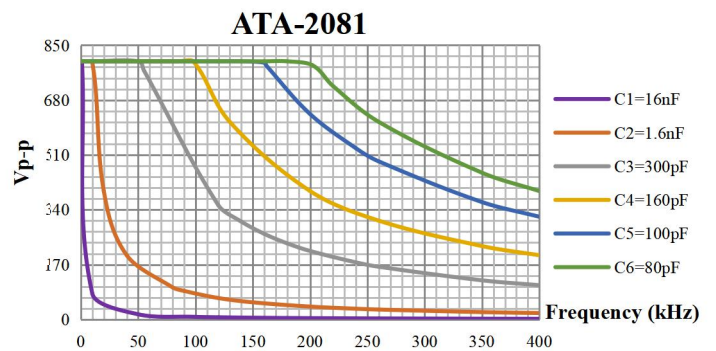
(7)ATA-2021H Capacitive loads curve



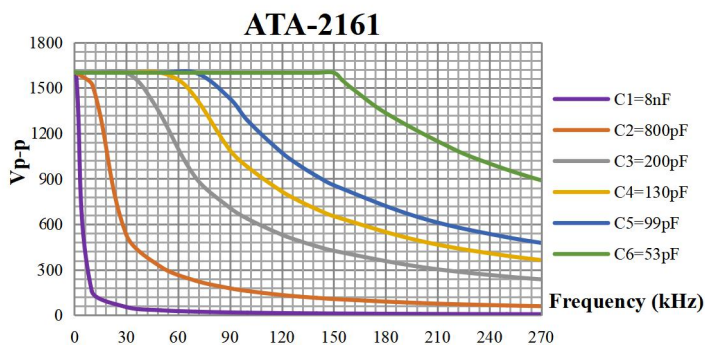
(8)ATA-2031 Capacitive loads curve



(9)ATA-2041Capacitive loads curve



(10)ATA-2081Capacitive loads curve



(11)ATA-2161 Capacitive loads curve

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