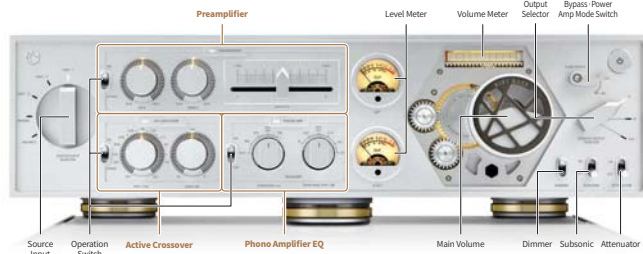
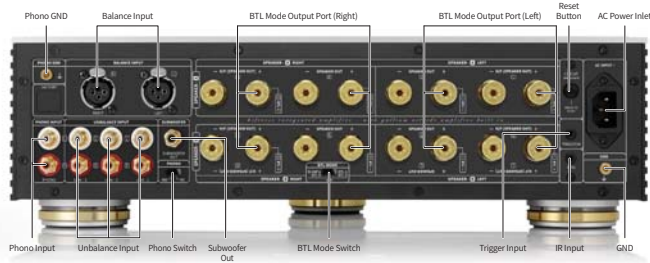


Front



Source Input Selector	Supporting 5 kinds of external input (LINE X 3, BALANCE X 1, PHONO X 1), it is also motorized and remotely adjustable.
Tone Control	Can control the TREBLE, BASS, BALANCE attributes.
Active Crossover	By removing the low frequency range, only the high frequency range is output, enable to produce high quality sound.
Main Volume	The main volume can be remotely adjusted.
Bypass-Power Amp Mode Switch	By bypassing the input signal without going through balance, tone control or active crossover, the purity of the sound quality can be improved. ⚠ But if the input signal is high, it may damage the speaker, so be sure to reduce the input signal before use.
Speaker Output Selector	Two sets of speakers can be connected and each set of speakers can be controlled by a switch.
Dimmer	The brightness of the light on the front of the product can be adjusted in 3 levels.
Subsonic	Blocks highly low noise that can negatively affect the speakers by blocking highly low frequencies.
Attenuator	Reduces the output volume to a minimum level.

Rear



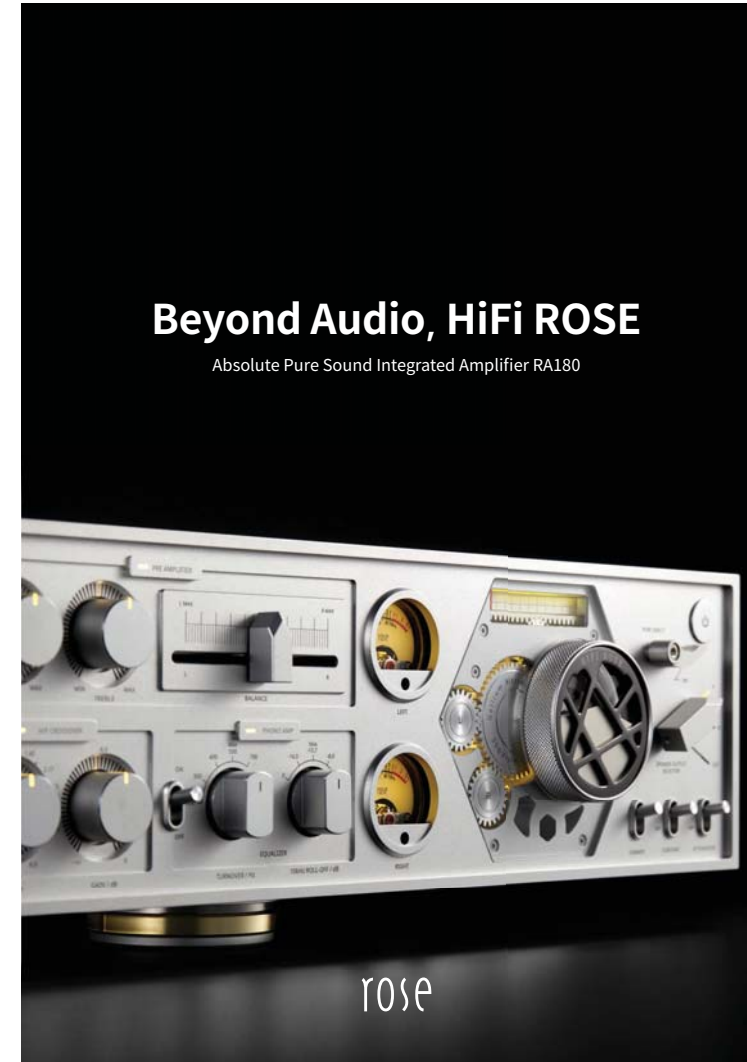
Circuit Breaker Recruitment	The power circuit breaker has been recruited to improve the conductivity of the input electricity, and by securing a wide passage for input electricity, the resolution of sound quality has been improved as well.
BTL Mode	By combining 4 mono amplifiers into 2 amplifier blocks, 400 W (8Ω) output per channel is supported.
AC Power Inlet	By adopting FURUTECH terminals processed with pure copper optimized for audio, it transmits the input electricity without interfering with the purity.
Subwoofer Out	Connected to an active subwoofer unit to provide a rich bass listening experience.

Specifications

*Maximum output per stereo output

Item	Condition	Specifications	Measurement Standard
Amplifier Output	4Ω	200W x 4ch (800W)	
	8Ω	200W x 4ch (800W)	
	BTL Mode On	400W x 2ch (800W)	400W x 2ch
Input Sensitivity	Balance Input	2,000mV	200W x 4ch
	Unbalance(Line1,2,3) Input	1,000mV	200W x 4ch
	Phono(MM/MC) Input	5mV / 0.5mV	200W x 4ch
Impedance Input	Balance Input	44kΩ	
	Unbalance(Line1,2,3) Input	47kΩ	
	Phono(MM/MC) Input	47kΩ	
Bandwidth (0dB±3dB/8Ω)	Speaker Output	10Hz - 90kHz	100W x 2ch
	H/F Speaker Output	10Hz - 90kHz	100W x 2ch
Frequency Respond (1W, 0±1dB/8Ω)	Speaker Output	10Hz - 90kHz	1W x 2ch
	H/F Speaker Output	10Hz - 90kHz	1W x 2ch
THD Measure	Balance & Unbalance(Line1,2,3) Input	0.005% (50W)	200W x 4ch
	Speaker & H/F Speaker Output	>150	200W x 2ch
Signal to Noise Ratio Measure (S/N)	BTL / Balanced, Unbalanced / Phono MM, MC	107dB / 106dB / 80dB(MM), 60dB(MC)	200W x 4ch
	Speaker Output	53mΩ	200W x 4ch
Subsonic Filter with On/Off Switch	-3dB	50Hz	1W x 4ch
	Tone Control with On/Off Switch	Bass(100Hz) / Treble(10kHz)	±15dB (Speaker Output)
X-Over with On/Off Switch	HPF(-3dB)	600Hz - 6kHz	1W x 2ch (H/F Speaker Output)
	Phono	Turnover	Flat
300Hz (+7.7dB@100Hz)			
400Hz (+11.7dB@100Hz)			
500Hz (+13dB@100Hz)			RIAA
700Hz (+14.5dB@100Hz)			
Roll-Off			Flat
	1.6kHz (-16dB@10kHz)		
	2.1kHz (-13.7dB@10kHz)	RIAA	
	3.18kHz (-11dB@10kHz)		
	3.4kHz (-8dB@10kHz)		
	6.36kHz (-5dB@10kHz)		
Design	Size	430(W) X 350(D) X 110(H) (Including feet: 430(W) X 391(D) X 130(H) mm)	
	Weight	16.7kg	
	Body	High Purity Aluminum	
Power	Power	SMPS (800W)	Maximum Output : 1100W
	Voltage	AC100-230V, 50/60Hz	Standby Mode Power Consumption < 0.5W
Audio In/Out on Rear	Trigger	Trigger Voltage Can Be Turned On : 3.3V -12V	
Remote Control	IR Input	38kHz Infrared Ray (Within 10m of Operating Distance)	

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Absolute Pure Sound Integrated Amplifier RA180

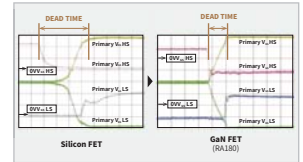
The RA180 is a state-of-the-art integrated amplifier using the latest innovative technologies. Power damping and dead times were reduced to 1/10 or less. Linearity was dramatically improved to create a near-perfect sound that transcends the boundaries between digital and analog. Enjoy the pure sound of nature provided by the RA180.

New-Concept Class AD Amplifier

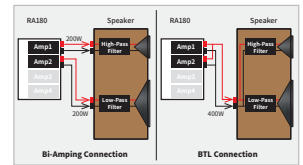
The amplifier has developed from Class A to AB to Class D. Class AB was developed to improve the high heat generation and low efficiency of A. Class D has higher efficiency and higher output than AB, and also significantly improved S/N and THD characteristics compared to A and AB. However, the sound quality has been evaluated as inferior to A/AB due to the limitations of the digital circuit. The GaN class AD amplifier developed by HIFI ROSE has dramatically improved the problems of the existing Class D by applying innovative new materials.

Class AD Amplifier

Class D amplifiers have a topology that theoretically provides a perfect linear output at 0% distortion and 100% power efficiency. In order to achieve this, the switching action requires high speed and accuracy. However, previous products were weak compared to Class A/AB in the linearity aspect due to the limitations of silicon FET, which had couldn't produce a smooth and natural sound. In the RA180, a new material, GaN FET, was used instead of Silicon FET to solve this problem. The dead time was dramatically improved to 1/10 or less, and a nearly perfect linear output was realized with a switching speed close to zero. This linearity goes beyond the Class D limits and produces a smooth and natural sound, like an analog amplifier.



Switching speed / Accuracy comparison between Silicon FET and GaN FET



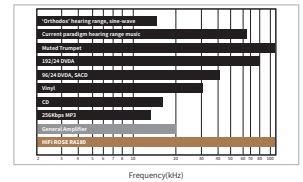
Connection to the speaker: Bi-Amping connection / BTL connection

Multi Output Component

The RA180 consists of two modules: one AMP module specialized for stable mid-bass and balance, and another specialized for smooth high-pitched and super tweeter areas. Each AMP module supports 200W(8Ω) and can output up to 400 W per channel. When two independent modules are connected to a speaker's high and low frequencies separately, the driving force can be greatly improved without being affected by a counter electro-motive force. BTL mode combines two independent modules for rich, balanced sound.

Designed to Play Up to the Super Twitter Realm

The human hearing range has an upper limit of 15-20 kHz. So, is there no need for higher frequencies? Temporarily high trebles extend well beyond 20 kHz, even in harmonious sound. For example, trumpets have a frequency response that extends to 100 kHz, and 88.2 kHz to 192 kHz sources have a 40 kHz to 96 kHz frequency response. The RA180 is designed with a wide frequency response range so that even high-resolution sound sources with an output range of 20 Hz to 50 kHz, 100 kHz @ -3 dB, 200 kHz @ -6 dB. Although this playability may be outside a person's hearing range, it faithfully reproduces a wide frequency range, which contributes to expressing a deep and wide sound field with the original sound.



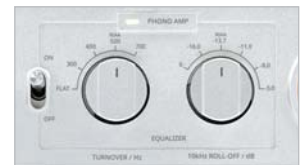
Balanced Power Supply

The power supply that has been exclusively developed for the RA180 applies 4th generation SiC FET technology to provide high output with less heat. In addition, by using a self-developed PFC (power factor circuit), it is designed not to be affected by sudden load fluctuations. The power supply device was developed to support a powerful damping factor of at least 200, and the high output of 1000 W is designed to produce powerful bass and soft treble.



PHONO Amplifier with Variable EQ

The purpose of the PHONO amplifier provided by the RA180 is for the recording producer to accurately reproduce the original intention. It also reproduces the original sound as it is, which is the principle of HIFI ROSE. It is designed to respond to a variety of vinyl records with low-mid bass TURNOVER and high-frequency ROLL OFF adjustment functions. Amplifies the very weak signal picked up by the cartridge and keep it as close as possible to the original sound. MOVING MAGNET and MOVING COIL STAGES are provided with a simple switch selection and EQ values corresponding to curves from various record manufacturers are provided using parts with a 0.1% tolerance.



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