

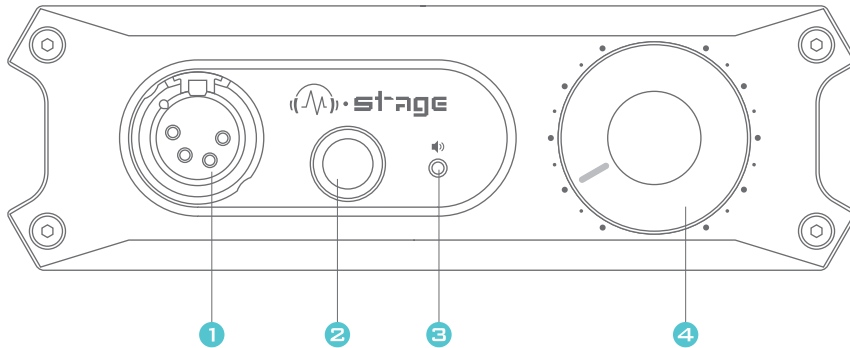


Manual

Overview

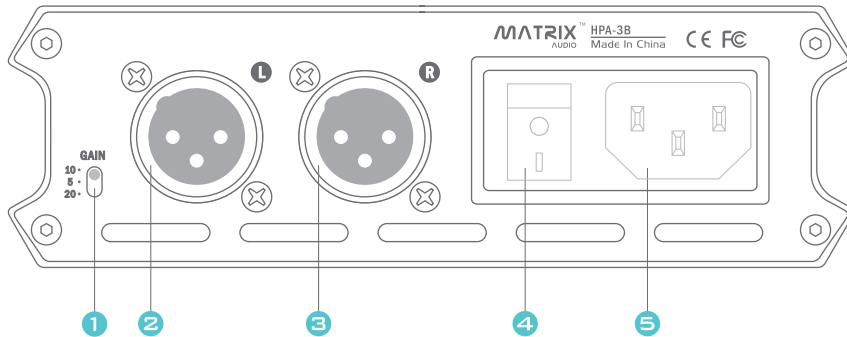
- HPA-3B is a new member of the M-Stage series headphone amplifier, who is the first one full-balanced design of the headphone amplifier, supports both single-ended output and differential output, use the adaptor plug to be worked in a single-ended input mode, maximizing the performance of the headphones.
- Full-band of THD + N less than 0.0003%, SNR up to -114dB, bandwidth not less than 140k at -3dB gain, 0.4Ω , three gain level options to fit for the different impedance and sensitivity headphone, all of these excellence performance improvements to be born the brand new HPA-3B!
- Excellent structural design to quickly dissipate the heat of power tube via the shell, full symmetric circuit layout, fully differential signal path amplification, driver stage is the precision constant current source, the precision quad-unit potentiometer volume control, all above features to make it has a better dynamic range and details than a single-ended headphone amplifier.
- The customized ALPS volume potentiometer, WIMA and NICHICON audio grade capacitors, NORATEL toroidal transformer, precision non-inductive resistance, every carefully chosen components to make HPA-3B not only presents the perfect sound, but also a more stable and reliable working status.

The Front Panel



- 1 Balance Headphone Jack
- 2 Single-ended Headphone Jack
- 3 Working LED Indicator
- 4 Volume Knob

The Rear Panel



- 1 Gain Switch
- 2 Left Channel XLR Analog Input
- 3 Right Channel XLR Analog Input
- 4 Power Switch
- 5 AC Power Input

AC Power

- HPA-3B compatible with AC 100-120V and AC 200-240V two voltage environments. Please set the voltage switch on the right position according to your local voltage environment before using.
- The voltage switch is on the left side, the two sections of the voltage switch are 115V and 230V, the following is the voltage range:

115V position is fit for AC100V-120V 50/60Hz

230V position is fit for AC220V-240V 50/60Hz

Please ensure the input voltage is in the right range before using, the incorrect voltage input can damage your device.

- The fuse of HPA-3B on the left side, press down and turn the fuse plug can take out the fuse.
- For reducing the noises and getting the best playback effect, please use the three-phase source wires of the power cord which includes the ground terminal, and ensure the ground is reliable connection.

Settings & Usage

- Power On/Off

Connected the power plug to the HPA-3B, turn on the power switch, the working LED indicator will light up about one second, then the HPA-3B will enter the working status.

- Input Channel

You can use standard XLR cable connect with the HPA-3B and also can use the accessory adaptor plug connect with the HPA-3B via RCA cable .

- Gain Control

The gain switch on the front panel, can set the gain at 5dB, 10dB or 20dB.

- Volume Control

Using the volume knob to adjust the volume, to avoid excessive volume causes hearing damage, please make sure the volume knob on the suitable position before power on.

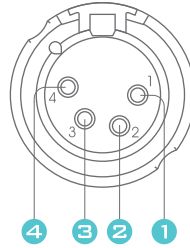
- Headphone Output

There have a 4-pin XLR headphone jack and a 1/4" headphone jack, can be connected a balance headphone and a mono headphone at same time.

Settings & Usage

The definition of 4-pin XLR headphone interface :

- ① Pin1 : L+
- ② Pin2 : L-
- ③ Pin3 : R+
- ④ Pin4 : R-



The 1/4" headphone jack is a stereo interface, please do not connect the mono plug into it, otherwise it will have the risk to damage your device.

HPA-3B can eliminate the power on/off impact noise with its own protection circuit, if a failure caused the amplifier output a higher voltage that the working LED indicator will be off, in this case, please disconnect the headphone plug quickly from the HPA-3B to protect your headphone.

Technical Specification

- Balance Headphone Output

SNR: 114dB A-weighting

THD+N: <0.0003% at 300ohms 135mW 1kHz A-weighting

Frequency Response: 20Hz-20kHz(+0dB/-0.05dB)

Output Impedance: 0.6ohms

Output Power: 3800mW at 33ohms at THD+N=0.01%
1500mW at 300ohms at THD+N=0.01%
800mW at 600ohms at THD+N=0.01%

- SE Headphone Output

SNR: 108dB A-weighting

THD+N: <0.0004% at 300ohms 325mW 1kHz A-weighting

Frequency Response: 20Hz-20kHz(+0.03dB/-0.1dB)

Output Impedance: 0.4ohms

Output Power: 2100mW at 33ohms at THD+N=0.01%
430mW at 300ohms at THD+N=0.01%
220mW at 600ohms at THD+N=0.01%

Technical Specification

- Gain Control

5=5dB 10=10dB 20=20dB

- Power Specifications

Power Voltage: 230V position is fit for AC220V-240V 50/60Hz

115V position is fit for AC100V-120V 50/60Hz

Power Consumption: <25W

Fuse: AC250V/500mA 5x20mm

- Other Specifications

Dimension: 285mm×142mm×49mm

(L×W×H, including the protruding part)

Weight: 1.7kg

NOTE: For the improvement purpose, specifications subject to changes without prior notice.

Customer Service

From the purchase date, we will provide you one-year-limited warranty , warranty does not cover accessories.

Any fault caused by quality problems during the warranty period, we will provide free maintenance. The free maintenance do not cover by incorrect using, negligence, accidental damage and unauthorized modifications or replace components.

For more information, please visit www.matrix-digi.com.



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