



X7s 甲类平衡输出耳机放大器
Class-A Headphone Amplifier With Balanced Output

使用手册 / Manual

前言

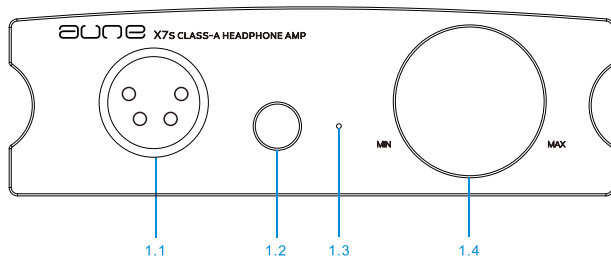
亲爱的用户：

感谢您购买X系列的X7s甲类平衡输出耳机放大器，并恭喜您慧眼独具选择了这台甲类平衡输出耳机放大器。

衷心期望这台崭新的X7s，能带给您许多高保真音乐的体验和乐趣。

我们建议您先阅读本手册，以便正确使用此台甲类平衡输出耳机放大器的所有功能。

前面板视图及各部名称



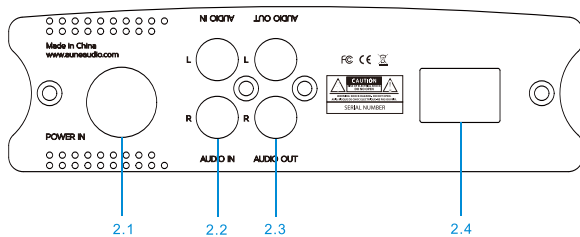
1.1 平衡耳机插孔

1.2 耳机插孔

1.3 指示灯

1.4 音量控制旋钮

后面板视图及各部名称



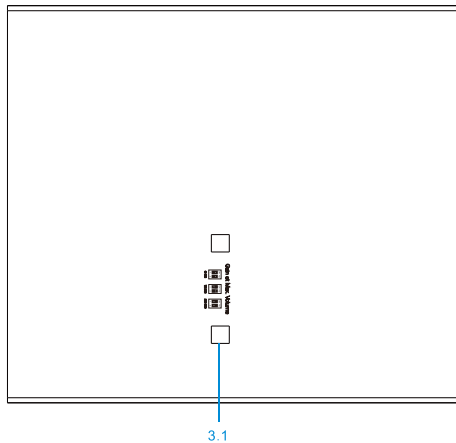
2.1 交流电源输入接口

2.2 线路输入接口

2.3 前级输出接口

2.4 电源开关

底部面板视图及各部名称



3.1 耳机输出增益调节

介绍

X7s为aune的甲类平衡输出耳机放大器，采用8只TO220三极管甲类偏置设计，内部四路耳机放大器组成平衡和单端输出，同时具有前级功能，是一款音质醇厚大驱动力的小型甲类耳机放大器。

参数

输入：RCA输入 1组

输出：RCA前级输出 1组

单端接口：6.35mm输出耳机插孔

平衡接口：四芯平衡输出插孔

频响：Frequency response : 20Hz-200kHz $\pm 0.3\text{dB}$

失真：

TYP THD+n <0.00014% @1kHz 300 Ω

TYP THD+n <0.00013% @1kHz 300 Ω XLR

互调失真：

TYP CCIF IMD <0.00036%

TYP CCIF IMD <0.00057% XLR

输出功率：

MAX OUTPUT POWER=250mW @300 Ω

MAX OUTPUT POWER=1000mW @300 Ω XLR

尺寸：145*171*45 (mm)

总重：2.5kg

净重：2kg

配件：主机 x1 / 电源 x1 / 使用手册 x1 / 6.35mm转3.5mm转接头 x1

操作说明

耳机放大器功能

- 1、音源（例如X1s、X5s、M2、S6等设备）的线路输出接入X7s的线路输入“AUDIO IN”
- 2、接驳好对应耳机或耳塞
- 3、听歌前，音量调整到最小

注：底部增益开关控制X7s的输出增益，根据不同灵敏度耳机和耳塞调整合适的增益

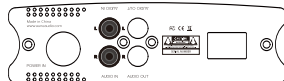
注：

禁止两个耳机孔同时使用

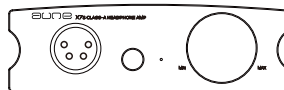


平衡母座插孔的定义

- 1 L+ 左声道+
- 2 L- 左声道-
- 3 R+ 右声道+
- 4 R- 右声道-



X7s后面板



X7s前面板



平衡插孔搭配您的耳机



6. 35mm插孔搭配您的耳机

图1

操作说明

前级功能使用

1、音源（例如X1s、X5s、M2、S6等设备）的线路输出接入X7s的线路输入 "AUDIO IN"

2、X7s的前级输出 "AUDIO OUT" 接驳到后级功放或有源音箱的音频输入接口

3、听歌前，音量调整到最小

注：当作为前级使用建议底部增益开到12dB档位

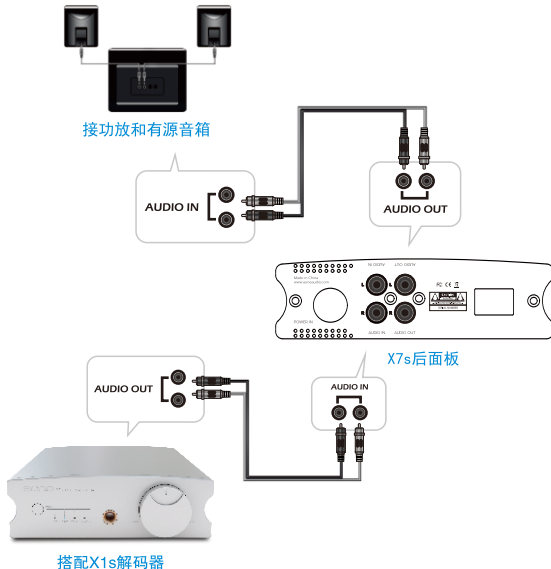


图2

操作说明

耳机输出增益调节

- 1、通过X7s底部耳放输出增益调节，可调节耳机输出增益，以适合不同灵敏耳机（如图3）
- 2、当开关1和2都处于OFF状态时，增益为0dB（1和2都关=0dB）
- 3、当开关1处于ON状态，开关2处于OFF状态时，增益为12dB（开1关2=12dB）
- 4、当开关1和2都处于ON状态时，增益为20dB（1和2都开=20dB）

Gain at Max. Volume

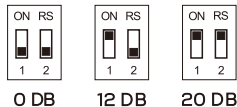
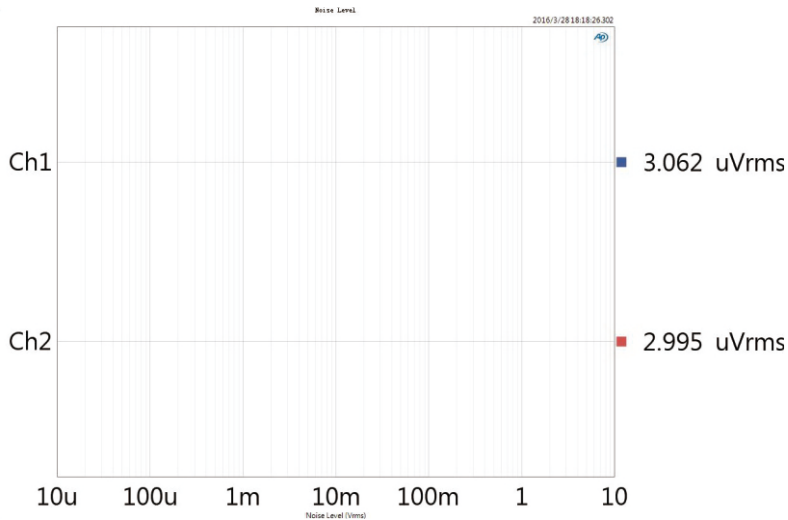
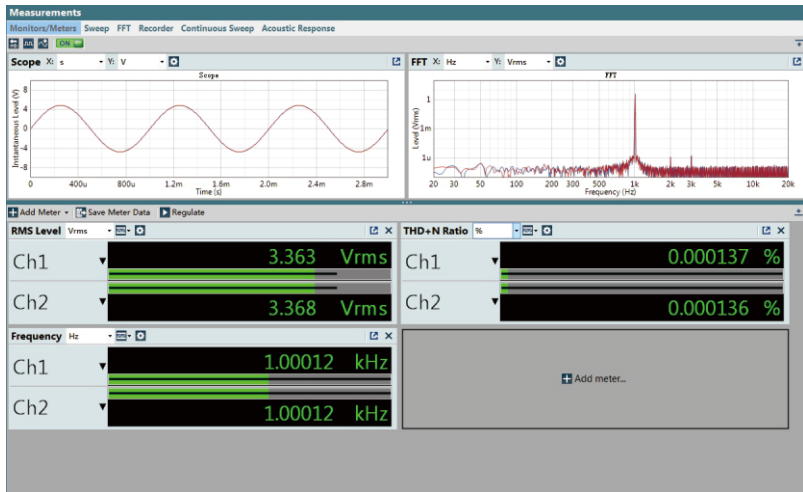


图3

测试曲线



测试曲线



警告提示

- 仅能使用建议的配件，以避免干扰、短路或电击。
- 请勿让器材暴露在湿气或雨水中。
- 请勿尝试拆除机身零件 外盖：专业修理工作仅能由获得授权的维修单位

法律提示

- 请遵守著作权法。未经授权自行转载或公开播放转录媒体，例如经由录影带、CD、他人发行或寄送的内容，皆有可能违反著作权法。
- 此点对于所有附赠的软体亦然。
- 其他在本说明里提到的商标、公司及产品名称皆为相关公司的商标及注册商标。



电子装置的 废弃处置

(适用于欧盟以及其他有独立回收系统的欧洲国家)

本装置包含电子组件，因此不得弃置于一般的家庭垃圾内！必须送到由地方政府设置的资源回收点所提供的免费的服务。

其他和本主题相同的资讯，可从当地政府、废弃物处理公司或在购买产品的商店处得知。



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微信公众号
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产品交流QQ群
561406760

武汉奥莱尔科技发展有限公司
WUHAN AO LAI ER TECHNOLOGY CO.LTD.

地址：湖北省武汉市硚口区古田5路17号新材料孵化基地新1号楼201

电话：027-85420526 网址：www.auneaudio.com 邮箱：zhangli@auneaudio.com

欢迎加入aune产品交流QQ群：561406760

Foreword

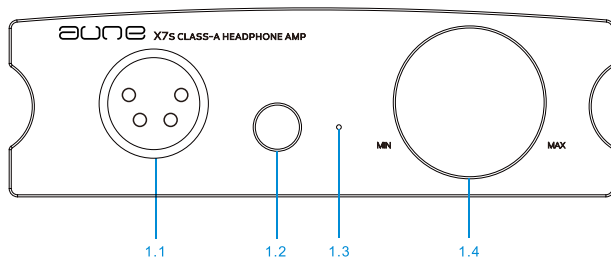
Dear Customers,

Thanks for purchasing the X7s class-A headphone amplifier with balanced output of the aune X series. This is definitely a wise decision!

We sincerely hope the brand new X7s will bring you great listening pleasure.

To fully appreciate the capabilities of the X7s, please read the following manual carefully and completely before using the product.

View of front panel and name of each part



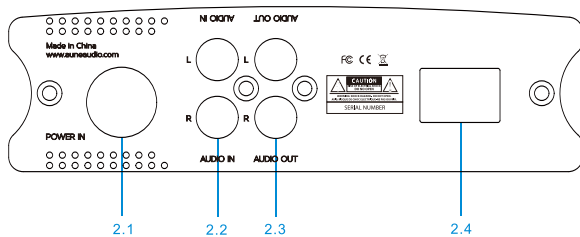
1.1 Balanced headphone output socket

1.2 Headphone port

1.3 Power indicator

1.4 Volume knob

View of rear panel and name of each part



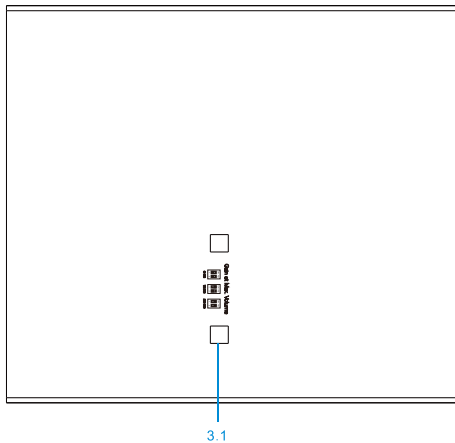
2.1 AC power in

2.2 AUDIO IN

2.3 AUDIO OUT

2.4 Power switch

View of bottom panel and name of each part



3.1 Gain controls of the headphone output

Introduction

The X7s is the latest class-A balanced output headphone amplifier of aune with eight T0220 transistors and the design of class-A biasing. It has 4 headphone amplifiers within to build the balanced headphone socket and the single-ended headphone port. It can also be used as a pre-amplifier. The X7s is a mini desktop class-A headphone amplifier with great power and rich sound.

Specifications

Input: RCA

Output: RCA (when used as a pre-amplifier)

Singled-ended port: 6.35mm headphone port

Balanced output: 4-pin balanced headphone output socket

Frequency response: 20Hz-200kHz $\pm$ 0.3dB

Distortion:

TYP THD+n <0.00014% @1kHz 300 Ω

TYP THD+n <0.00013% @1kHz 300 Ω XLR

IMD:

TYP CCIF IMD <0.00036%

TYP CCIF IMD <0.00057% XLR

Output power:

MAX OUTPUT POWER=250mW @300 Ω

MAX OUTPUT POWER=1000mW @300 Ω XLR

Dimensions: 145 x 45 x 171 (mm)

Net Weight: 2kg

Gross Weight: 2.5kg

Accessories: X7s x 1 / Power adapter x 1 / Manual x 1 / 6.35mm to 3.5mm adapter x 1

OPERATING INSTRUCTIONS

AS A HEADPHONE AMPLIFIER

1.Connect "AUDIO OUT"/"LINE OUT" of the sound source (e.g. aune X1s/X5s/M2/S6) to "AUDIO IN" of the X7s

2.Plug the headphones into the X7s

3.Set the volume to minimum before putting on the headphones

Notice: Please adjust the gain control on the bottom panel according to the headphones.

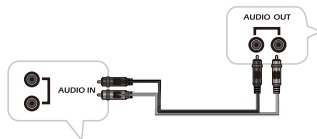
Caution:

It is prohibited to use the two headphone ports at the same time.



Balanced female socket definition

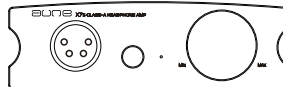
- 1 L+ Left channel+
- 2 L- Left channel-
- 3 R+ Right channel+
- 4 R- Right channel-



Pairing with aune X1s DAC



Rear panel



Front panel



Balanced headphone output socket
for your balanced headphones



6.35mm headphone port for your
headphones

Graphic 1

OPERATING INSTRUCTIONS

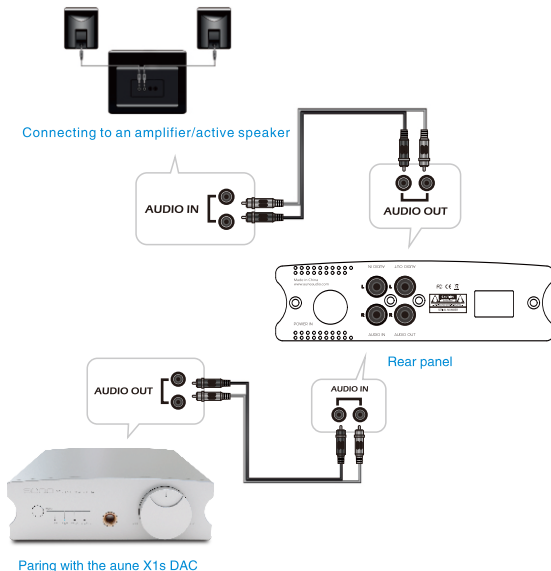
AS A PRE-AMPLIFIER

1. Connect "AUDIO OUT"/"LINE OUT" of the sound source (e.g. aune X1s/X5s/M2/S6) to "AUDIO IN" of the X7s

2. Connect "AUDIO OUT" of the X7s to "AUDIO IN" / "LINE IN" of an active speaker or an amplifier

3. Set the volume to minimum before putting on the headphones

Notice: please set the gain to 12dB when using the X7s as a pre-amplifier.



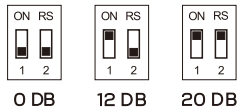
Graphic 2

OPERATING INSTRUCTIONS

HEADPHONE OUTPUT GAIN ADJUSTMENT

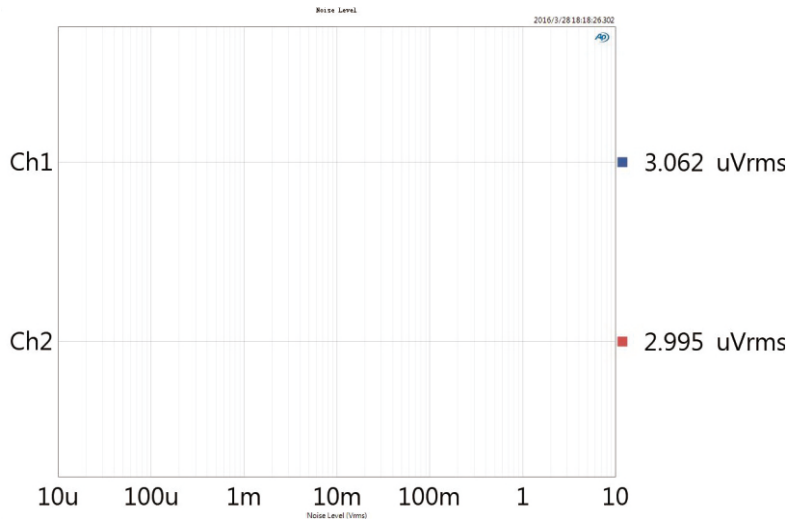
- 1、 The gain of headphone output is adjustable for different headphones (as shown in graphic 3).
- 2、 When switch 1 and switch 2 are both OFF, the gain is 0dB
- 3、 When switch 1 is ON and switch 2 is OFF, the gain is 12dB
- 4、 When switch 1 and 2 are both ON, the gain is 20dB

Gain at Max. Volume

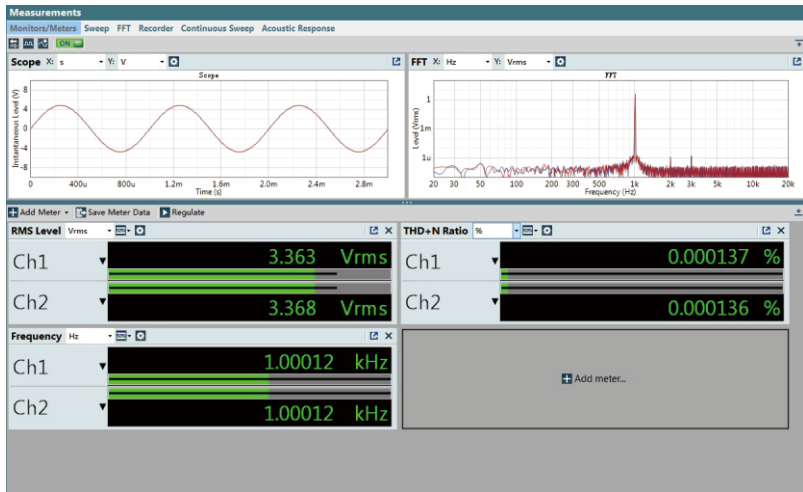


Graphic 3

TEST CURVE



TEST CURVE



WARNING MESSAGES

- Use exclusively recommended accessories to prevent faults, short circuits or electric shock.
- Do not expose the unit to moisture or rain.
- Do not attempt to remove parts of the body (covers); specialist repairs can be carried out only at authorized service centers

LEGAL NOTES

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- This also applies to all of the software supplied.
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(Applies within the eU, and for other european countries with separated waste collection systems)

This device contains electronic components and therefore may not be disposed of as general household waste. Instead it should be disposed of at a recycling collection point provided by the local authority. This costs you nothing. Your local authority or waste disposal authority, or the shop where you bought this device, can provide you with further information on this issue.



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武汉奥莱尔科技发展有限公司

WUHAN AO LAI ER TECHNOLOGY CO.LTD.

Address: Number 17, Gutian 5rd, Qiaokou district, Wuhan, 430000, China

Tel: +86-27-59251012 Web: www.auneaudio.com Email: sales@auneaudio.com

aune

aune | 430034 WUHAN | CHINA

Telephone: +86 027 85420526 | Fax: +86 027 85840435 | www.auneaudio.com