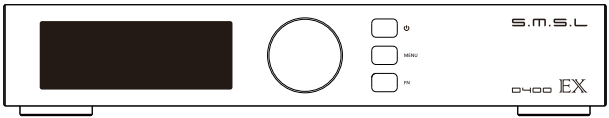
S.M.S.L

Hi-Res AUDIO

D400 EX

使用说明书



本说明书的内容可能会随版本更改
如有变动, 恕不另行通知

Ver 1.0

安全注意事项

- 请将本音响系统安装在通风良好、阴凉、干燥、干净的位置，远离直射阳光热源、振动、灰尘、潮湿或寒冷。
- 只能使用本机指定的电压。使用高于指定数值的电压很危险，而且可能导致火灾，损坏本机或造成人身伤害。对于使用高于指定电压造成的任何损害，我司将不负任何责任。
- 不要试图自行改造或修理本机。如果需要任何服务，请与销售或者我司客服人员联系。不管有任何理由，都没有打开机壳的必要。
- 如果打算长时间不使用本机（比如度假时），请从墙壁交流电源插座上断开电源线的连接。

重要提示：

本说明书所提到的产品规格和资讯仅供参考。如有内容更新，恕不另行通知。

保修条款

一、服务期限

佛山双木三林科技有限公司承诺产品的良好品质，产品自售出之后7天内正常使用情况下出现故障，客户可以选择退货或者保修（不影响二次销售才可退货）。正常使用一年内出现故障可以免费保修。

二、购买日期以销售商开出的购机发票或收据日期为准，网购可以交易截图为准。

三、有以下情况都不能享受“三包”服务

1.一切人为因素损坏，包括非正常工作环境下使用或不按照说明书使用。
2.用户私自拆机、改装、维修。
3.使用非指定或许可的配件造成损坏的。
4.机身的QC或保修贴损毁。
5.不能出示有效购机凭证。
6.不属于本公司产品。

四、保修方式为送修

此条款只适于中国大陆，其它地区请参考当地销售代理商的规定和国家法规。

特点

- 支持MQA解码，支持MQA-CD；
- 全新第三代XMOS XU-316，PCM支持到32bit/768kHz，DSD支持到DSD512；
- 旗舰DAC芯片1颗AK4191+ 2片AK4499EX,挖掘芯片所有潜能；
- 双单声道设计,每声道一片AK4499EX,失真度低至惊人的0.00006%(-124dB)；
- 使用9片高端双运放及大量发烧元器件；
- 采用2nd PLL,消除SPDIF传输过程中的JITTER;
- 全新自主研发的CK-03时钟处理电路，大大降低时钟抖动；
- 支持DOP独立显示功能,准确判断当前解码格式;
- USB、光纤、同轴、AES、I2S支持DSD传输，同轴和光纤支持DOP64；
- 使用钢化玻璃全贴合彩色IPS显示屏；
- 内置低噪声电源处理，同时提高电源效率，功耗更低；
- 搭配多个低噪声稳压电源，提供稳定可靠高效低噪声的供电系统。
- 高通高端蓝牙芯片,支持LDAC(24bit/96kHz)，APTX/HD，SBC，AAC；
- 高品质全铝合金外壳,支持高品质镀金输入输出连接端子；
- 日本音频协会(JAS)Hi-Res认证；
- 配备遥控器和全功能遥控。

技术参数

输入方式	USB /光纤/同轴/I²S/蓝牙/AES		
输出方式	单端线路/平衡线路		
THD+N	0.000067%(-123.5dB)		
	0.000053%(-125.5dB) (A-WTD)		
动态范围	平衡线路		133dB
	单端线路		128dB
信噪比	133dB		
USB传输方式	异步传输		
USB兼容性	Windows 7 / 8 / 8.1 / 10, Mac OSX, Linux		
位深	USB / I²S		1bit，16~32bit
	光纤/同轴		1bit，16~24bit
采样率	USB / I²S	PCM	44.1~768kHz
		DSD	2.8224~22.5792MHz
	光纤/同轴	PCM	44.1~192kHz

蓝牙规格：

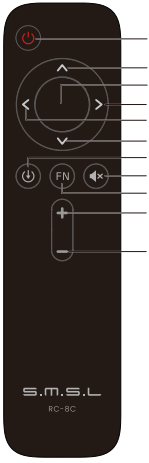
LDAC	24bit/96kHz (990kbps/660kbps/330kbps)
aptX-HD	24bit/48 kHz_576kbps
aptX	16bit/44.1 kHz_352kbps
SBC	16bit/44.1 kHz_328kbps
AAC	16bit/44.1 kHz_320kbps
消耗功率	6W
待机功耗	<0.5W
体积	240x188x46mm (WxHxD)
重量	1.85kg/4.08 lb

SMSL保留在不另行通知的情况下进行可能导致规格或特性更改的改进的权利。

关于遥控器

- 如果遥控器距离本机很近时操作仍无效，请用新电池更换。
- 如果要长时间不使用遥控器，请取出遥控器的电池。
- 按照电池处置的地方性法规处置废旧电池。

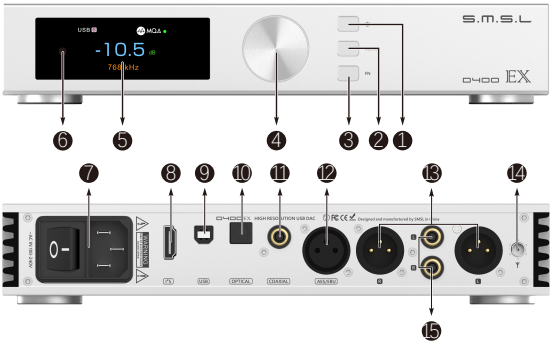
遥控器的使用



注意

遥控器请使用2节7号(AAA)电池

部件介绍



1. 开关机按钮
2. 菜单按钮
3. FN按钮
4. 旋钮
5. 显示屏
6. 红外接收窗
7. 电源输入
8. I²S输入
9. USB输入
10. 光纤输入
11. 同轴输入
12. AES/EBU输入
13. 平衡线路输出
14. 蓝牙天线
15. 单端线路输出

功能旋钮 *

- **旋钮:** 音量加减, 菜单切换, 功能选择。
- **按键:** 短按, 进入菜单, 确认; 长按, 退出菜单, 开关机。

蓝牙操作说明 **

- **连接:** 将输入源切换至蓝牙, 打开手机蓝牙功能, 搜索"SMSL D400 EX", 搜索到后点击配对连接, 当手机显示"已连接"则已连接成功。
- **重连:** 在使用蓝牙过程中, 如果失去连接, 例如: 外出, 然后回来, 有些手机不会自动重新连接, 在这个时候, 短按遥控器上的蓝牙按键就可以重新连接。
- **清除配对:** 长按遥控器"蓝牙控制"按键。在清除配对后, 部分手机可能会出现无法再搜索到"SMSL D400 EX", 此时需要将手机保存的蓝牙设备"SMSL D400 EX"删除掉, 然后再搜索配对。

功能介绍

INPUTS (输入方式)

- USB (USB输入)
- BLUETOOTH (蓝牙输入)
- OPTICAL (光纤输入)
- COAXIAL (同轴输入)
- AES/EBU (AES/EBU输入)
- I2S(HDMI) (I^2S输入)

OUTPUTS (输出方式)

- ALL LINE OUT (全部输出)
- BALANCED (平衡输出)
- UNBALANCED (非平衡输出)

PCM FILTER (PCM滤波器)

- SHARP ROLL-OFF (快速滚降)
- SLOW ROLL-OFF (慢速滚降)
- SHORT SHARP (短延时快速滚降)
- SHORT SLOW (短延时慢速滚降)
- SUPER SLOW (超级慢速滚降)
- LOW DISPERSION (低分散延时)

DSD FILTER (DSD滤波器)

- WIDE (窄模式)
- NARROW (宽模式)

功能介绍

SOUND COLOR(音色菜单)

- SOUND 1(5.6M)
- SOUND 2(5.6M)
- SOUND 3(11M)
- SOUND 4(11M)

AK4499EX工作采样率为5.6MHz。
AK4499EX工作采样率为11.2896MHz。

PRE MODE(前级模式)

PRE MODE为输出接口的音量调节功能开关：

- VARIABLE: 输出接口音量是受控的。
- FIXED: 输出接口音量是固定的。
- FIXED DSD BYPASS

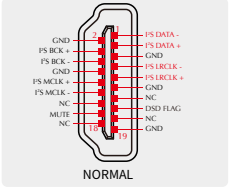
FN KEY FOR (FN按键作用)

- OUTPUTS (输出选择)
- BLUETOOTH (切换到蓝牙输入)
- PHASE (切换到输出相位)

功能介绍

I²S MODE(I²S模式)

- NORMAL （正常，PS AUDIO格式)
- REVERSED(反相，DATA和LRCK反相)



注: 这个选项用于匹配不同的I2S接口标准, 使用前请检查信号源的接口定义。

I²S DSD CHANNEL(DSD声道设置)

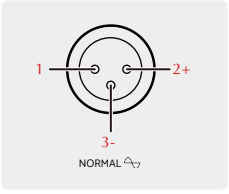
- DSDL = PCM DATA (DSD左声道和PCM的数据引脚共用)(默认)
- DSDL = PCM LRCK (DSD左声道和PCM的LRCK引脚共用)

注: 在使用I²S接口播放DSD音频时, 如果发现左右声道不正确, 则可以使用这个选项来纠正。

功能介绍

AUDIO PHASE

- NORMAL (2+,3-)
- INVERTED (2-,3+)



DIMMER (自动熄屏)

- 5秒 ~ 60秒

(范围5秒 - 60秒, 设置后, 屏会在这个时间内自动熄灭, 遥控或者旋钮任意操作屏幕会重新点亮。这样可以很大程度减少光污染, 提升听音环境的舒适性!)

BRIGHTNESS (显示屏亮度设置)

- LEVEL 1 ~ LEVEL 6

RESET (系统复位)

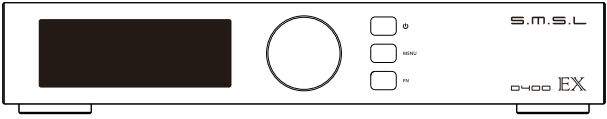
- 在蓝牙输入时, 长按旋钮中键，系统只会重置蓝牙配对状态;
- 在其它输入时, 长按旋钮中键，系统清除所有设定, 包括蓝牙。

S.M.S.L

Hi-Res AUDIO

D400 EX

USER MANUAL



The contents of this manual may be changed with the edition and are subject to change without notice

Ver 1.0

Safety Notes

- Install this unit in a well ventilated, cool, dry, clean place-away from direct sunlight, heat sources, vibration, dust, moisture, or cold..
- Use the voltage specified on this unit Only. Using this unit with a higher voltage than specified is dangerous and may cause fire , damage to this unit, or personal injury. Our company will not be held responsible for any damage resulting from the use of this unit with a voltage other than that specified.
- Do not attempt to modify or fix this unit by yourself. Contact alesperson or customer service when any service is needed. The cabinet should never be opened for any reason.
- When not planning to use this unit for long periods of time (i.e. when going on vacation), disconnect the power cable from the AC wall outlet.

Important note:
The product specifications and information mentioned in this manual are for reference only. The content of this manual is subject to change without notice.

Warranty Terms

1.The Term of Service
Foshan Shuangmusanlin Technology Co., Ltd promises to offer good-quality products. If the product is broken in 7 days after purchasing when you use it normally, you can choose to send it back for return, replacement or repairing (only the product does not affect the second sales can be returned). Repairing for free in one year if you use it normally.

2.Date of purchase is in accordance with the date on invoice or receipt uesd by seller, and if you buy it on line, you can show the screenshot of trade.

3.If an inappropriate usage causes the unit damaged, the warranty will be void. As below.

- All damages by inappropriate use, including using it under non-normal working environment or without following the instructions.
- Dismantling, refitting, repairing by user in private.
- Causing damage by using some fittings instead of the designative or accredited ones.
- Cannot provide credible proof of purchase.

4.Sending it back to our company for repairing.

5.Contact your S.M.S.L Audio reseller for a return or replacement.

Features

- Support MQA decoding, support MQA-CD;
- New 3rd generation XMOS XU-316, PCM support up to 32bit/768kHz, DSD support to DSD512;
- Flagship DAC chip 1 AK4191+ 2 AK4499EX, tap all the potential of the chip;
- Dual mono design, one AK4499EX per channel, distortion as low as a staggering 0.00006% (-124dB);
- Use 9 high-end dual op amps and a large number of audiophile components;
- Adopt 2nd PLL to eliminate JITTER during SPDIF transmission;
- The new self-developed CK-03 clock processing circuit greatly reduces clock jitter;
- Support DOP independent display function, accurately determine the current decoding format;
- USB, optical fiber, coaxial , AES, I2S support DSD transmission, coaxial and optical fiber support DOP64;
- Use tempered glass to fully fit the color IPS display;
- Built-in low-noise power processing, while improving power efficiency, lower power consumption;
- Combined with multiple low-noise regulated power supplies, it provides a stable, reliable, efficient, and low-noise power supply system.
- Qualcomm high-end Bluetooth chip, support LDAC (24bit/96kHz), APTX/HD, SBC, AAC;
- High quality all-aluminum alloy shell, support high quality gold plated input and output connection terminals;
- Japan Audio Association (JAS) Hi-Res certification;
- Equipped with remote control and full-featured remote control.

Specifications

Input			USB / Optical / Coaxial / I²S / Bluetooth /AES
Output			RCA / XLR
THD+N			0.000067%(-123.5dB)
			0.000053%(-125.5dB) (A-WTD)
Dynamic range		XLR	133dB
		RCA	128dB
SNR			133dB
USB transmission			Asynchronization
USB compatibility			Windows 7 / 8 / 8.1 / 10, Mac OSX、Linux
Bit depth	USB / I²S		1bit, 16 ~ 32bit
	Optical / Coaxial		1bit, 16 ~ 32bit
Sampling rate	USB / I²S	PCM	44.1 ~ 768kHz
		DSD	2.8224 ~ 22.5792MHz
	Optical / Coaxial	PCM	44.1 ~ 192kHz

Bluetooth specification：

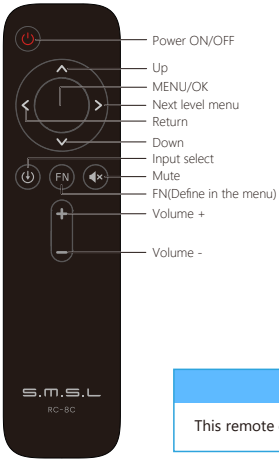
LDAC	24bit/96kHz (990kbps/660kbps/330kbps)
aptX-HD	24bit/48 kHz_576kbps
aptX	16bit/44.1 kHz_352kbps
SBC	16bit/44.1 kHz_328kbps
AAC	16bit/44.1 kHz_320kbps
Power Consumption	6W
Standby power	<0.5W
Size	240X188X46mm (WxHxD)
Weight	1.85kg/4.08lb

SMSL reserves the right to make improvements which may result in specification or feature changes without notice.

Remote control

- If the remote control is still ineffective when it is close to the machine, replace it with a new battery.
- If the user does not use the remote control for a long time, remove the battery of the remote control.
- Dispose of used batteries in accordance with local regulations on battery disposal.

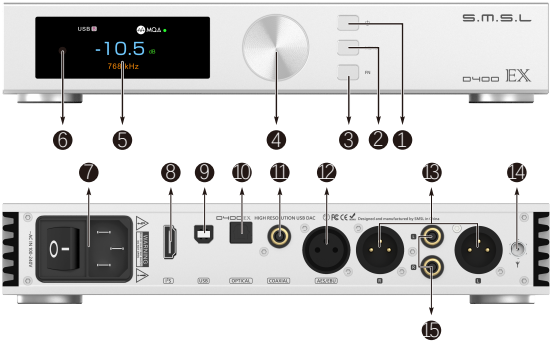
Operating the remote control



Note

This remote controller use 2 x R03/AAA batteries.

Display Interface and Instructions



1 Turn on / off button**	2 Menu button	3 FN button*
4 Knob	5 Display	6 Remote window
7 AC IN	8 I²S input	9 USB input
10 Optical input	11 Coaxial input	12 AES/EBU input
13 XLR output	14 Bluetooth antenna**	15 RCA output

Knob*

- **Konb:** Volume +/-, menu switching, function selection.
- **Button:** Short press to enter the menu and confirm;
  long press to exit the menu and switch the machine on and off.

Bluetooth operating instructions**

Connection:

Switch the input source to Bluetooth, turn on the Bluetooth function of the phone, search for "SMSL D400 EX", click Pair Connection after searching, and when the phone shows "Connected", the connection is successful.

Re-connection:

During the use of Bluetooth, if the connection is lost, eg: going out, and then coming back, some phones will not automatically reconnect, at this time, a short press of the Bluetooth button on the remote control can reconnect.

Clear pairing:

Press and hold the Bluetooth Control button on the remote control. After clearing the pairing, some phones may no longer be able to search for "SMSL D400 EX", in which case you need to delete the Bluetooth device "SMSL D400 EX" saved by the phone and then search for pairing.

Instructions

INPUTS

- USB
- BLUETOOTH
- OPTICAL
- COAXIAL
- AES/EBU
- I2S(HDMI)

OUTPUTS

- ALL LINE OUT
- BALANCED
- UNBALANCED

PCM FILTER

- SHARP ROLL-OFF
- SLOW ROLL-OFF
- SHORT SHARP
- SHORT SLOW
- SUPER SLOW
- LOW DISPERSION

DSD FILTER

- WIDE
- NARROW

Instructions

SOUND COLOR

- SOUND 1(5.6M)
- SOUND 2(5.6M)
- SOUND 3(11M)
- SOUND 4(11M)

The AK4499EX operates at a sampling rate of 5.6448MHz.
The AK4499EX operates at a sampling rate of 11.2896MHz.

PRE MODE

PRE MODE is the volume adjustment function switch for the output.

- VARIABLE: The output volume is controlled.
- FIXED: The output volume is fixed.
- FIXED DSD BYPASS:
  The output volume is fixed and DSD signal not pass the volume processing block.

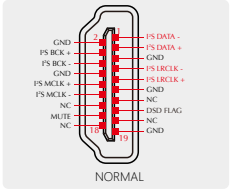
FN KEY FOR

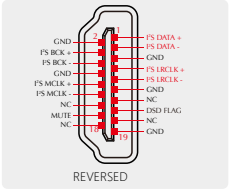
- OUTPUTS
- BLUETOOTH
- PHASE

Instructions

I²S MODE

- NORMAL
- REVERSED





Note: This option is used to match different I²S interface standards, please check the interface definition of the signal source before use

I²S DSD CHANNEL

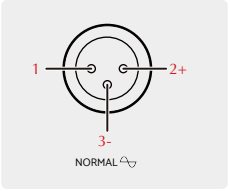
- DSDL=PCM DATA (The DSD left channel using the PCM DATA pin)
- DSDL=PCM LRCK (The DSD left channel using the PCM LRCK pin)

Note: When using the I²S input to streaming DSD audio, if you find that the left and right channels are incorrect, you can use this option to correct it.

Instructions

AUDIO PHASE

- NORMAL (2+,3-)
- INVERTED (2-,3+)



DIMMER

- 5 second ~ 60 second

(The range is 5 seconds-60 seconds. After setting, the screen will automatically go off within this time, and the screen will re-light up if you operate the remote control or the knob at any time.)

BRIGHTNESS

- LEVEL 1 ~ LEVEL 6

RESET

- During Bluetooth input, long press the middle button of the knob, the system will only reset the Bluetooth pairing status;
- During other input, long press the middle button of the knob, the system will clear all settings, including Bluetooth.