

D400 MK2

使用说明书/USER MANUAL



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+ 1片AK4499EX,挖掘芯片所有潜能,失真度低至0.00006%(-124dB);
- 使用5片高端双运放及大量发烧元器件;
- 全新自主研发的CK-04时钟处理电路, 大大降低时钟抖动;
- 内置 ± 3 ppb, 10MHz OCXO晶振;
- 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		
输出幅度:	平衡线路	5Vrms	
	单端线路	2.5Vrms	
输出阻抗:	平衡线路	200Ω	
	单端线路	100Ω	
THD+N:	平衡线路	0.00006%(-124dB)(UN-WTD)	
	单端线路	0.00008%(-121dB)(UN-WTD)	
动态范围	平衡线路	132dB	
	单端线路	126dB	
信噪比:	平衡线路	132dB	
	单端线路	126dB	
USB传输方式	异步传输		
USB兼容性:	Windows 7 / 8 / 8.1 / 10 / 11(需要驱动)		
	Mac OSX10.6以上、Linux(不需要驱动)		
MQA decoder	USB / 光纤 / 同轴		
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	<10W		
待机功耗	<0.5W		
体积	254x189x46mm (WxHxD)		
重量	1.9kg/4.18lbs		

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 旋钮 | 2 红外接收窗 | 3 指示灯 |
| 4 显示屏 | 5 平衡线路输出 | 6 蓝牙天线 |
| 7 单端线路输出 | 8 AES/EBU输入 | 9 同轴输入 |
| 10 光纤输入 | 11 USB输入 | 12 I²S输入 |
| 13 电源输入 | | |

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 MK2", 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 MK2", 此时需要将手机保存的蓝牙设备"SMSL D400 MK2"删除掉, 然后再搜索配对。

功能介绍

■ INPUTS (输入方式)

- USB TYPE B (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) (I²S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)

功能介绍

■ DSD FILTER (DSD滤波器)

- WIDE (窄模式)
- NARROW (宽模式)

■ SOUND COLOR(音色菜单)

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

■ 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

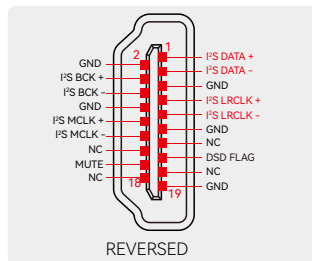
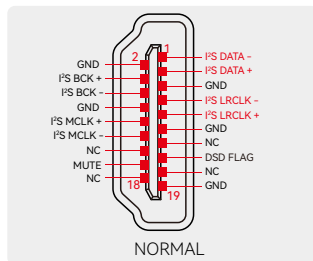
■ FN KEY FOR (FN按键作用)

- 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)

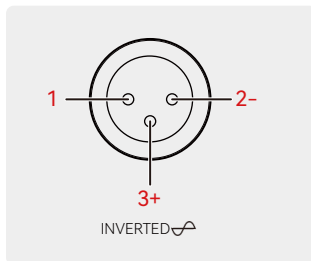
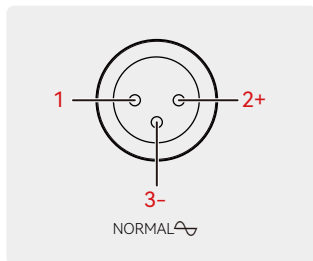
- NORMAL (正常, PS AUDIO格式)
- REVERSED (反相, DATA和LRCLK反相)



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。

■ AUDIO PHASE

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



功能介绍

■ 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。

■ 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)

- 1%~ 99%

■ 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。

关于MQA

MQA (Master Quality Authenticated) 是一项屡获殊荣的英国技术, 是一种兼有极高的采样率和足够小的文件体积的高解析音频编码技术。此机采用MQA技术, 可以接收并解码MQA音频, 提供母带级别的声音。

有关更多信息, 请访问<https://www.mqa.co.uk/how-it-works>

如何播放MQA

- 此机的USB、光纤、同轴支持MQA解码!
- 此机的MQA播放不要求使用特殊的播放软件, 例如foobar2000, Audirvana-plus只要支持ASIO或者WASAPI的音频输出就可以了, 并且在播放MQA音频时, 最好将电脑的音量调到最大, 以使得电脑的音频输出是最佳状态。
- 在播放MQA文件时, 显示屏显示的采样率为音频原始采样率。



MQA 和声波标志是MQA Limited的注册商标。©2016

播放MQA-CD注意事项

- 必须确认所播放的是一张真正的MQA-CD ;
- 确认CD播放器所输出的光纤或者同轴信号是未经处理的源码。

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美好品质，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。

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+ 1 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 5 high-end dual op amps and a large number of audiophile components;
- The self-developed CK-04 clock processing circuit greatly reduces the clock jitter;
- Built-in $\pm 3\text{ppb}$, 10MHz OCXO crystal oscillator
- 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;
- Using tempered glass full lamination 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

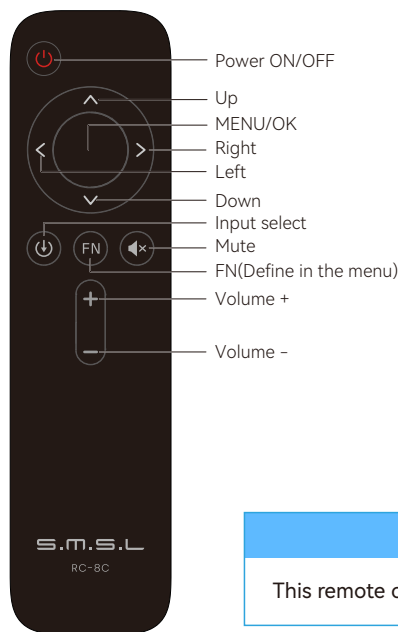
Input	USB/Optical/Coaxial/I²S/Bluetooth/AES		
Output	RCA/XLR		
Output Level:	XLR	5Vrms	
	RCA	2.5Vrms	
Output impedance:	XLR	200Ω	
	RCA	100Ω	
THD+N:	XLR	0.00006%(-124dB)(UN-WTD)	
	RCA	0.00008%(-121dB)(UN-WTD)	
Dynamic range	XLR	132dB	
	RCA	126dB	
SNR:	XLR	132dB	
	RCA	126dB	
USB transmission	Asynchronization		
USB compatibility:	Windows 7 / 8 / 8.1 / 10 / 11(needs drive)		
	Mac OSX10.6or later、Linux(driveless)		
MQA decoder	USB/Optical/Coaxial		
Bit Depth	USB / I²S		1bit, 16~32bit
	Optical / Coaxial		1bit, 16~24bit
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	<10W		
Standby power	<0.5W		
Size	254x189x46mm (WxHxD)		
Weight	1.9kg/4.18lbs		

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 Knob | 2 Remote window | 3 Indicator light |
| 4 Display | 5 XLR output | 6 Bluetooth antenna |
| 7 RCA Output | 8 AES/EBU Input | 9 Coaxial Input |
| 10 Optical input | 11 USB input | 12 I²S input |
| 13 AC IN | | |

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 MK2", 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 MK2", in which case you need to delete the Bluetooth device "SMSL D400 MK2" saved by the phone and then search for pairing.

Instructions

■ INPUTS

- USB TYPE B
- 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

Instructions

■ DSD FILTER

- WIDE
- NARROW

■ SOUND COLOR

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

■ PRE MODE

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

- VARIABLE : The output volume is controlled.
- FIXED : The output connector volume is fixed.
- FIXED DSD BYPASS :
Open the DSD direct access function. At this time, the volume of PCM or DSD is not adjusted. The output amplitude is fixed to about 3.7VRMS. When this function is opened, the DSD is not processed at all, and the output is directly output.

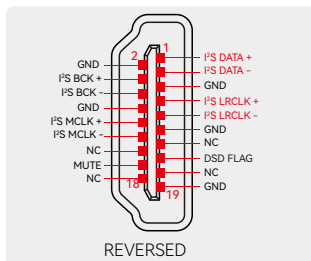
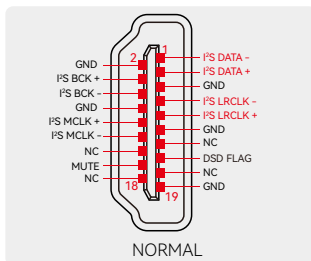
■ FN KEY FOR

- OUTPUTS
- BLUETOOTH
- PHASE

Instructions

I²S MODE

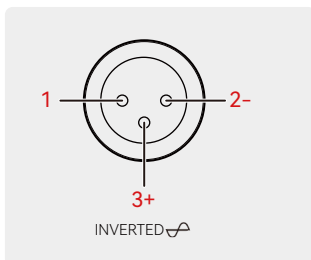
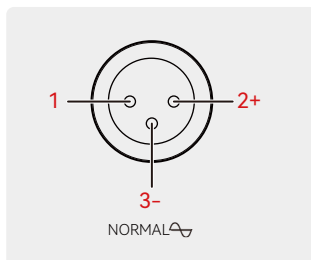
- NORMAL
- REVERSED



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

AUDIO PHASE

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



Instructions

■ 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.

■ 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

- 1% ~ 99%

■ 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.

About MQA

MQA (Master Quality Authenticated) is an award-winning British technology that delivers the sound of the original master recording. The master MQA file is fully authenticated and is small enough to stream or download. The D400 MK2 includes MQA technology, which enables you to playback MQA audio files and streams, delivering the sound of the original master recording.

Visit How it works <https://www.mqa.co.uk/how-it-works> for more information.

How to play MQA

- D400 MK2 supports MQA decoding with USB, optical fiber and coaxial!
- D400 MK2's MQA playback does not require the use of special playback software, such as foobar2000, Audirvanaplus only needs to support ASIO or WASAPI audio output, and when playing MQA audio, it is best to adjust the volume of the computer to the maximum, so that the audio output of the computer is in the best condition.
- When playing an MQA file, the sampling rate of the original master recording is displayed.



MQA and the Sound Wave Device are registered trade marks of MQA Limited.© 2016

Notes on playing MQA-CD

- Please make sure that what is being played is a genuine MQA-CD.
- Verify that the optical or coaxial signal output of the CD player is an unprocessed source code.

Warranty Terms

1. Warranty Policy

- SMSL/VMV Audio warrants that the product shall be free from defects in function under normal use for a period of 24 months from the date of original retail purchase by the end-user (the “Warranty Period”).
- This warranty is valid only for products purchased through authorized distributors or retailers. Proof of purchase (original receipt or invoice) is required.
- This warranty does not cover: damage caused by accident, misuse, abuse, unauthorized modifications, commercial use, or failure to follow product instructions.

2. Returns & Repair

- For defective products within the Warranty Period, please contact our customer service or the authorized seller from whom you made the purchase to initiate a return or exchange or repair.

3. Service Process

- All after-sales requests must be initiated through the point of purchase (e.g., the specific online platform store or authorized distributor).
- Please have your order number, product serial number, and a description/video of the issue ready.
- Do not return any product without first obtaining a Return Merchandise Authorization (RMA) number. Unauthorized returns may be refused.
- Ship the product to the address provided in your RMA instructions by online platform store or authorized distributor. We will inspect it and notify you of the resolution.

S.M.S.L