

S.M.S.L



# RAW-MDFA 1

## 使用说明书/USER MANUAL

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

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

Ver 1.1

S.M.S.L

## 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;
- 两片ESS新一代高端数模芯片ES9039Q2M;
- 高通最新蓝牙芯片支持LDAC 24bit/96kHz、APTX/HD、SBC、AAC;
- 6片高端双运放OPA1612和大量音频级元器件;
- 全新第三代XMOS XU-316, PCM支持到32bit/768kHz, DSD支持到DSD512;
- 音频专用时钟处理电路,大大降低时钟抖动;
- USB1.1与USB2.0两种模式选择;
- 输入端口(蓝牙除外)均支持MQA和DSD,同轴和光纤支持DoP64;
- 内置自研低噪声开关电源和多个模拟电路低噪声电源;
- 使用钢化玻璃全贴合彩色显示屏;
- 高品质镀金输入输出连接端子;
- 日本音响协会(JAS)Hi-Res认证;
- 配备全功能遥控器。



## 技术参数

输入方式.....	USB/光纤x2/同轴x2/蓝牙
输出方式.....	单端线路/平衡线路/耳放
THD+N.....	0.00005% (-124.5dB不计权)
输出幅度.....	平衡线路 5.2Vrms 单端线路 2.5Vrms 耳放输出 8.2Vrms
耳放输出功率.....	16Ω 2.5Wx2 32Ω 1.7Wx2
输出阻抗.....	线路输出 100Ω 耳放输出 接近0Ω
动态范围.....	平衡线路 132dB 单端线路 127dB 耳放输出 122dB
信噪比.....	平衡线路 132dB 单端线路 127dB 耳放输出 122dB
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解码.....	USB / 光纤 / 同轴
采样率与位深:	
USB	PCM 44.1~768kHz(32bit) DSD 2.8224~22.5792MHz(1bit) DoP DoP256
光纤/同轴	44.1~192kHz(24bit) DoP DoP64
蓝牙规格.....	5.1(支持SBC,AAC,aptX,aptX HD,LDAC)
消耗功率.....	<30W
待机功耗.....	<0.5W
体积.....	189x45x179mm(WxHxD)
重量.....	1.02kg/2.24lbs

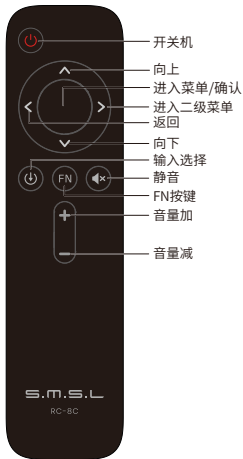
SMSL保留在不另行通知的情况下进行可能导致规格或特性更改的改进的权利。

## 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

- 遥控器请使用2节7号(AAA)电池。



## 部件介绍



- |                 |                    |                     |
|-----------------|--------------------|---------------------|
| <b>1</b> 旋钮     | <b>2</b> 红外接收窗     | <b>3</b> 待机指示灯      |
| <b>4</b> 显示屏    | <b>5</b> 4.4mm耳机接口 | <b>6</b> 6.35mm耳机接口 |
| <b>7</b> 平衡线路输出 | <b>8</b> 同轴输入2     | <b>9</b> 同轴输入1      |
| <b>10</b> 蓝牙天线  | <b>11</b> 单端线路输出   | <b>12</b> 光纤输入2     |
| <b>13</b> 光纤输入1 | <b>14</b> USB输入    | <b>15</b> 电源输入      |

# 功能介绍

## INPUTS (输入方式)

- USB TYPE C (USB输入)
- BLUETOOTH (蓝牙输入)
- OPTICAL 1 (光纤输入1)
- COAXIAL 1 (同轴输入1)
- OPTICAL 2 (光纤输入2)
- COAXIAL 2 (同轴输入2)

## HPA GAIN (耳放增益)

- LOW (低增益)
- HIGH (高增益11dB)

## 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。

## FN KEY FOR (FN按钮)

- Switch LINE/HPA
- All Outputs (输出选择)
- Bluetooth (蓝牙输入)

## OUTPUTS (输出方式)

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

## SOUND COLOR(音色菜单)

本机总共有9种音色模式，它是通过对DAC进行DSP处理，分别为：

- Rich1、Rich2、Rich3(泛音丰富)
- Tube1、Tube2、Tube3(胆味)
- Crystal1、Crystal2、Crystal3(高清晰度)

音色设置是使用DAC内部DSP,做出不同的音色效果,所有这些设置不会改变频率响应曲线。设置为Standard模式将禁用此功能!

## USB (USB设置)

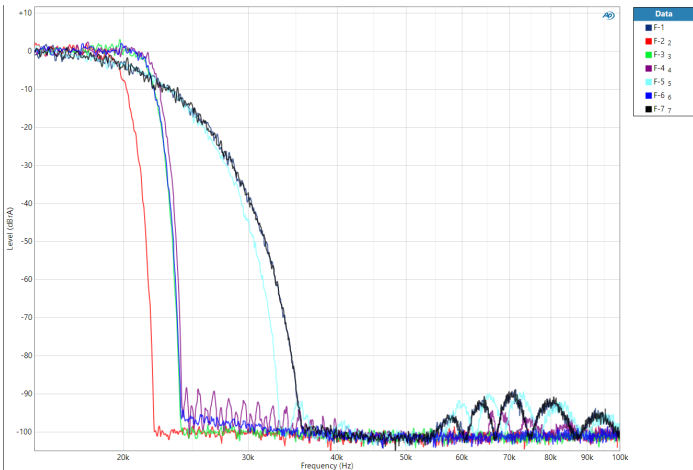
- USB UAC 1(对应USB1.1模式)
- USB UAC 2(对应USB2.0模式。在连接WIN系统需要安装驱动,支持高规格的采样率)

1. 可以免驱动连接所有USB设备。
2. 可以支持多种游戏机的连接,例如 PS4, PS5, Switch等等。
3. USB1.1 仅支持最大采样率96kHz。



## PCM Filter(PCM滤波器)

- F-1:Minimum phase (最低相位)
- F-2:Linear phase apodizing fast roll-off (线性相位变迹快速滚降)
- F-3:Linear phase fast roll-off (线性相位快速滚降)
- F-4:Linear phase fast roll-off low ripple (低纹波线性相位快速滚降)
- F-5:Linear phase slow roll-off (线性相位慢滚降)
- F-6:Minimum phase fast roll-off (最小相位快速滚降)
- F-7:Minimum phase slow roll-off low dispersion (最小相位慢滚降低扩散)



# 功能介绍

## DPLL (数字锁相环)

- MIN ~ MAX

(共15种, 默认为7。数字越大适应抖动的范围越强, 数字越小抗时钟抖动的性能越好。)

这个DPLL设定是ESS系列产品特有的功能, 它可以调整芯片内部DPLL数字锁相环电路的带宽, 使芯片在抗时钟抖动和输入宽容度之间达到一个平衡。

它的作用:

- 在输入信号的时钟稳定度好的情况, 可以减小这个值, 这样系统的时钟性能更佳;
- 在输入信号的时钟稳定度不好的情况下, 声音有可能会有中断的现象, 增大这个值可以避免声音中断现象的发生! 特别是使用电视作为信号源时。

## 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

(亮度等级1-6, 数值越小, 亮度越低)

## UI STYLE (UI设置)

- UNIVERSAL
- GRAPHICS

## 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>

### **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。

## 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, Audirvanaplus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。

## 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 a person 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 used 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

- Supports MQA decoding and MQA-CD;
- 2 pieces of ESS new generation high-end DAC chip ES9039Q2M;
- Adapts the latest Bluetooth chip of Qualcomm, supports LDAC 24bit/96kHz, APTX/HD, SBC and AAC;
- Utilizes 6 high-end dual op-amps OPA1612 and numerous audio-grade components;
- The brand-new third-generation XMOS XU-316, supports up to PCM 32bit/768kHz and DSD512;
- The audio clock processing circuit helps reduce clock jitter greatly;
- There are two modes to choose from: USB 1.1 and USB 2.0;
- Input ports (except Bluetooth) support MQA and DSD, coaxial and optical support DoP64;
- Built-in self-developed low-noise switching power supply and multiple analog circuits low-noise power supply;
- Full-fit color display screen with tempered glass
- High-quality gold-plated input and output connectors;
- Japan Audio Association (JAS)Hi-Res certification;
- Equipped with a full-featured remote control.



# Specifications

Input.....	USB/Optical x2/Coaxial x2/Bluetooth		
Output.....	RCA/XLR/HEADPHONE		
THD+N.....	0.00005%(-124.5dB non-Weighting)		
Line output amplitude.....	XLR		5.2Vrms
	RCA		2.5Vrms
	HP		8.2Vrms
Headphone output power.....	16Ω		2.5Wx2
	32Ω		1.7Wx2
Output Impedance.....	LINE OUT		100Ω
	HP OUT		Near 0Ω
Dynamic range.....	XLR		132dB
	RCA		127dB
	HP		122dB
SNR.....	XLR		132dB
	RCA		127dB
	HP		122dB
USB transmission.....	Asynchronization		
USB compatibility.....	Windows 7 / 8 / 8.1 / 10 / 11(Needs Driver)		
	Mac OSX10.6 or Later, Linux(Driverless)		
MQA decoder.....	USB/Optical/Coaxial		
Sampling rate & Bit Depth:	USB	PCM	44.1~768kHz(32bit)
		DSD	2.8224~22.5792MHz(1bit)
		DoP	DoP256
	Optical / Coaxial		44.1~192kHz(24bit)
		DoP	DoP64
Bluetooth specification.....	5.1(Support SBC,AAC,aptX,aptX HD,LDAC)		
Power Consumption.....	<30W		
Standby power.....	<0.5W		
Size.....	189x45x179mm(WxHxD)		
Weight.....	1.02kg/2.24lbs		

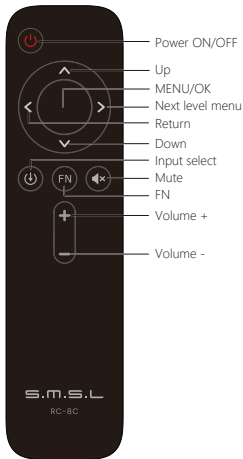
SMSL reserves the right to make improvements which may result in specification or feature changes without notice.

## 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

- This remote controller use 2 x R03/AAA batteries.



# Display Interface and Instructions



- |                             |                               |                                  |
|-----------------------------|-------------------------------|----------------------------------|
| <b>1</b> Knob               | <b>2</b> Remote window        | <b>3</b> Standby indicator light |
| <b>4</b> Display            | <b>5</b> 4.4mm headphone jack | <b>6</b> 6.35mm headphone jack   |
| <b>7</b> XLR outputs        | <b>8</b> Coaxial input 2      | <b>9</b> Coaxial input 1         |
| <b>10</b> Bluetooth antenna | <b>11</b> RCA outputs         | <b>12</b> Optical input 2        |
| <b>13</b> Optical input 1   | <b>14</b> USB input           | <b>15</b> AC IN                  |





# Instructions

## INPUTS

- USB TYPE C
- BLUETOOTH
- OPTICAL 1
- COAXIAL 1
- OPTICAL 2
- COAXIAL 2

## HPA GAIN

- LOW
- HIGH

## 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.

## FN KEY FOR

- Switch LINE/HPA
- All Outputs
- Bluetooth

## OUTPUTS

- ALL LINE OUT
- HEADPHONE OUT
- BALANCED
- UNBALANCED

## SOUND COLOR

There are 9 sound color settings:

- Rich1 Rich2 Rich3
- Tube1 Tube2 Tube3
- Crystal1 Crystal2 Crystal3

This setting is using the DSP of DAC, to make some different sound color, all of these settings will not change the frequency response curve. When set to "Standard", this setting will be bypassed.

## USB

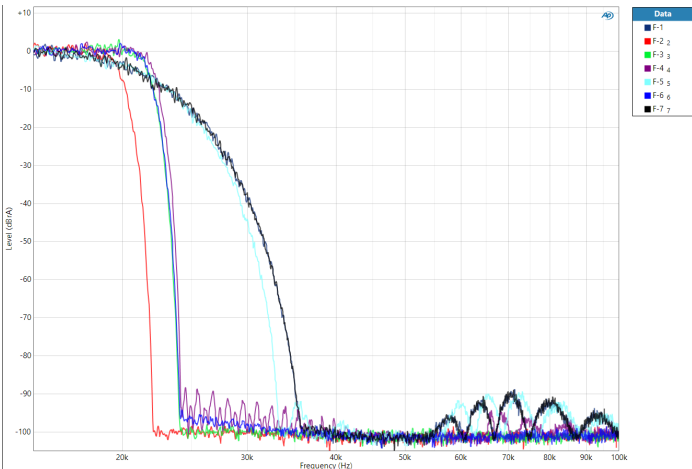
- USB1.1 (Corresponding to USB 1.1 mode.)
- USB2.0 (Corresponding to USB 2.0 mode.  
WIN system needs to install driver, support DSD)

1. It is possible to connect all USB devices without a driver.
2. It can support the connection of various game consoles, such as PS4, PS5, Nintendo Switch etc.
3. USB 1.1 only supports a maximum of 96kHz.

# Instructions

## PCM FILTER

- F-1:Minimum phase
- F-2:Linear phase apodizing fast roll-off
- F-3:Linear phase fast roll-off
- F-4:Linear phase fast roll-off low ripple
- F-5:Linear phase slow roll-off
- F-6:Minimum phase fast roll-off
- F-7:Minimum phase slow roll-off low dispersion





# Instructions

## DPLL

- MIN ~ MAX

(A total of 15 kinds, the default is 7 kinds. The larger the number is, the stronger the range to adapt to jitter, and the smaller the number, the better the performance against clock jitter.) This DPLL setting is a special function of ESS series products. It can adjust the internal

Its function:

- When the clock stability of the input signal is good, this value can be reduced, so that the clock performance of the system is better;
- When the clock stability of the input signal is not good, the sound may be interrupted. Increasing this value can avoid sound interruption! Especially when using TV as a signal source!

## DIMMER

- 5 ~ 60 seconds

(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

## UI STYLE

- UNIVERSAL
- GRAPHICS

## Bluetooth operation instructions:

- Short press the panel knob to enter the decoding mode for input switching. Rotate the knob left and right to switch the display to "BT" and enter Bluetooth matching mode.
- By pressing the input switch shortcut key on the remote control and switching to "BT", you can enter Bluetooth matching mode.

## 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 MDA1 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

- MDA1 supports MQA decoding with USB, optical fiber and coaxial!
- MDA1'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.

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## 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.