Model: D2

使用说明书 | USER MANUAL

http://www.smsl-audio.com/

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 1.0

安全注意事项

注意：
为防电击，请勿打开机盖（或后盖）。
本机内部无使用者可以维修的部件。
请委托有资格的技术人员进行维修。

	等边三角形中有箭头闪电标号的图形表示警告使用者在产品内有非绝缘的“危险电压”，可能会对人体造成很大的电击危险。
	等边三角形中有感叹号的图形表示警告使用者该设备在操作与维护（维修）方面应严格按照所附设备说明书。
	仅适用于海拔2000m以下地区安全使用。

注意：为了完全切断本机的电源，请从墙上插座中拔出插头。电源插头用于完全中断机器的电源供应。

特点

- 支持MQA硬解码;
- 旗舰DAC芯片AK4499, 业界最高性能。
- 失真度低至惊人的0.000068%(-123dB)!
- 在使用A计权测量时, 更是低至0.000058%(-124dB)!
- 动态范围高达131dB!
- USB使用XMOS第二代16核处理器XU216, 支持到原生DSD512和32位768kHz!
- 时钟系统使用2颗美国ACCUSILICON超低相噪晶振。
- 使用ALTERA的高速CPLD对时钟进行处理,降低JITTER。
- 特别设计和强化的电源系统,提供超低噪声的电源, 输出底噪低至1.8uVrms!
- 最新蓝牙支持LDAC,APTX/HD,SBC,AAC和业界最高规格的24bit/192kHz的UAT格式!
- 支持LVDS电平的I2S传输(使用HDMI接口),可以最低JITTER地传输数字音频!
- 支持接入外部时钟输入!
- 固件升级功能,用户可以自行升级系统和USB的固件。
- 使用彩色液晶显示屏和新开发的用户界面,全功能遥控。
- 使用美国TI的OPA1611,OPA1612顶级运放。
- 大量使用发烧级元器件,高精度、低温漂和电阻和电容。

目录

Table of content

技术参数

输入方式	USB /光纤/同轴/I²S/蓝牙/ AES/EBU		
输出方式	单端线路/平衡线路		
时钟	BNC(50 Ohms)		
时钟频率	10MHz / 11.2896MHz / 12.288MHz / 16.9344MHz		
	25MHz / 27MHz / 33.8688MHz		
THD+N	0.000068%(-123dB)		
	0.000058%(-124dB) (A-WTD)		
动态范围	平衡线路		131dB
	单端线路		125dB
信噪比	131dB		
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 / AES(EBU)		1bit，16~24bit
采样率	USB / I²S	PCM	44.1~768kHz
		DSD	2.8224~22.5792MHz
	光纤/同轴/ AES(EBU)	PCM	44.1~192kHz

蓝牙规格：

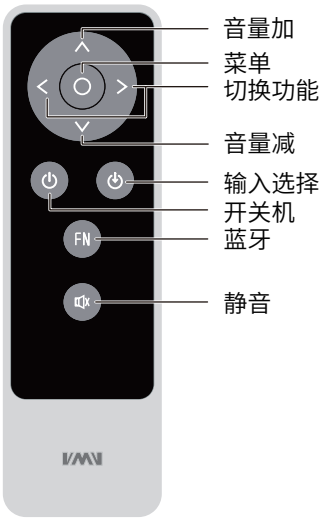
UAT	24bit/192kHz (1200kbps/900kbps/600kbps)
LDAC	24bit/96kHz (990kbps/660kbps/330kbps)
aptX-HD	24bit/48 kHz_576kbps
aptX	16bit/44.1 kHz_352kbps
SBC	16bit/44.1 kHz_328kbps
AAC	16bit/44.1 kHz_320kbps
消耗功率	<10W
待机功耗	<0.5W
体积	280X39X240mm(WxHxD)
重量	3kg

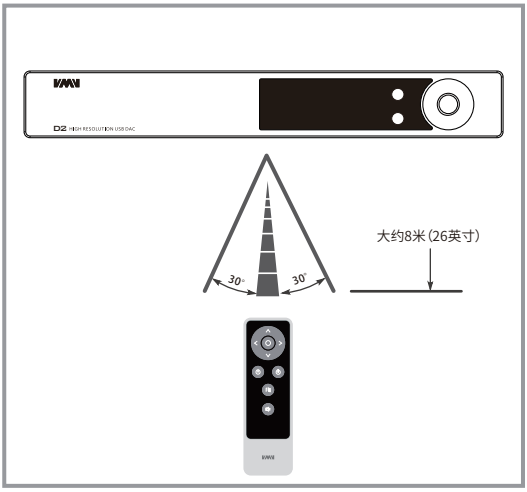
关于遥控器

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。





部件介绍

主机前面

1. 功能旋钮
2. 待机LED
3. 显示屏
4. 输入源选择按键
5. 红外接收窗
6. FN按键

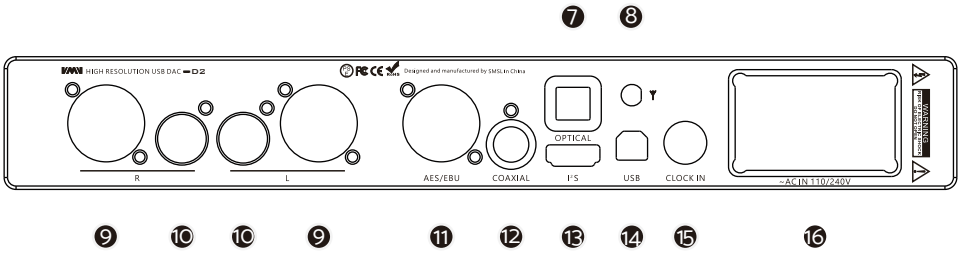
*注：功能旋钮

旋钮：音量加减，菜单切换，功能选择

按键：短按，进入菜单，确认

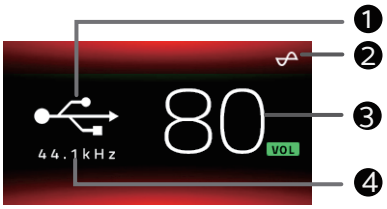
长按，退出菜单，开关机

主机背面



7. 光纤输入
8. 蓝牙天线
9. 平衡线路输出
10. 单端线路输出
11. AES/EBU输入
12. 同轴输入
13. I²S输入
14. USB输入
15. 时钟输入
16. 电源输入

显示界面和操作介绍



主界面

1. 输入选择

2. 音频输出相位

3. 音量显示

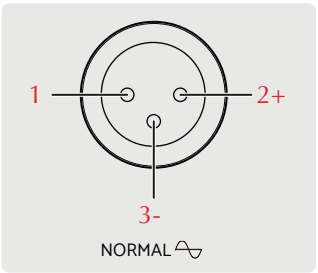
4. 音频显示格式/采样率

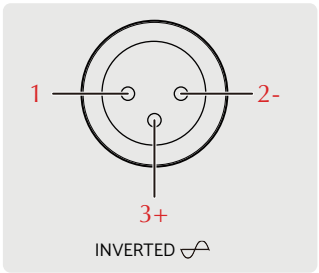
1. INPUTS (输入方式)

- USB AUDIO (USB输入)
- OPTICAL (光纤输入)
- COAXIAL (同轴输入)
- ABE/EBU (平衡数字输入)
- I2S(HDMI) (I²S输入)
- BLUETOOTH (蓝牙输入)

2. OUTPUTS (输出模式)

- ALL Normal (全部输出)
- XLR Normal (平衡输出)
- RCA Normal (同轴输出)
- ALL Inverted (全部输出反相)
- XLR Inverted (平衡输出反相)
- RCA Inverted (单端输出反相)





3. CLOCK MODE (时钟模式)

- NORMAL
  (内部时钟)
- EXTERNAL(USB)
  (仅USB使用外部时钟，仅对USB输入起作用，其它输入时，使用内部时钟)
- EXTERNAL(ALL)
  (都使用外部时钟，此设置需要外部输入时钟信号，对所有输入起作用，使用时，信号源与D2必须同时使用同一个时钟源才能同步工作，否则会引发噪音!)

4. CLOCK FREQUENCY (时钟频率)

- 10.0000MHz
- 11.2896MHz
- 12.2880MHz
- 16.9344MHz
- 25.0000MHz
- 27.0000MHz
- 33.8688MHz
- 256fs AUTO

5. SPDIF MODE (处理器模式)

这个设定仅对光纤和同轴这两个使用SPDIF协议的接口有效;

- NORMAL (普通模式)
  仅使用数字接收芯片对SPDIF信号进行处理，适用于大部分场合。
- PROCESSOR (处理器模式)
  此模式下本机会使用XMOS处理器对光纤同轴的信号进行处理,这样可以有强大的算力，可以处理包括MQA, DOP在内的各种复杂任务。
  注意: 使用时请勿频繁切换此模式,尽可能在切换完此模式后重启本机,否则可能会导致输出杂音。

6. PCM FILTER (PCM滤波器)

- SHARP （快速滚降）
- SLOW （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 SHORT （低分散短延时）

7. DSD FILTER(DSD滤波器设置)

- NARROW(37kHz) 窄模式（DSD64/37kHz , DSD128/74kHz）
- WIDE(65kHz) 宽模式（ DSD64/65kHz , DSD128/131kHz）

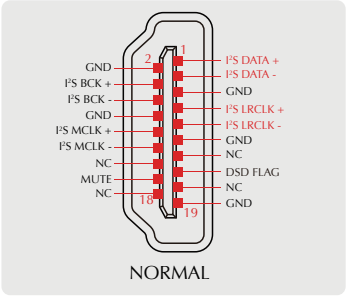
注：DSD256的频率响应为238kHz，DSD512为476kHz。

8. PRE MODE(前级模式)

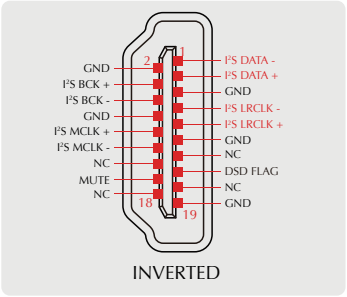
- VOLUME VARIABLE （音量可变）
- VOLUME FIXED （音量固定，播放DSD时声音直通）

9. I²S MODE(I²S相位设置)

- NORMAL 常规相位
- INVERTED 反相



NORMAL

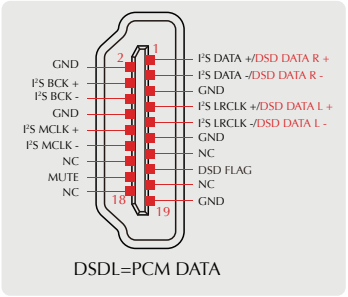


INVERTED

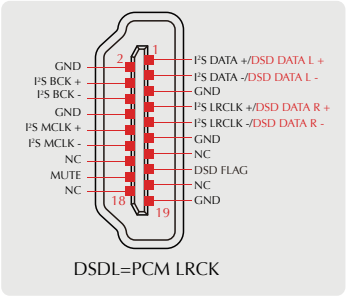
注: 这个选项用于匹配不同的I²S接口标准, 使用前请检查信号源的接口定义.

10. I²S DSD CHANNEL(I²S 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)



DSDL=PCM DATA

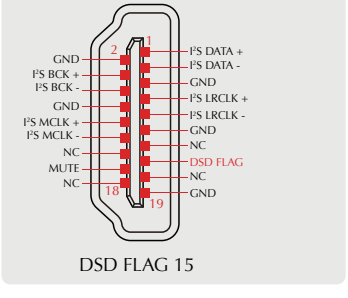


DSDL=PCM LRCK

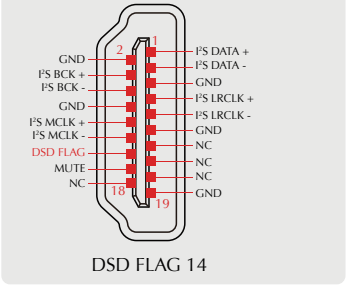
注: 在使用I²S接口播放DSD音频时, 如果发现左右声道不正确, 则可以使用这个选项来纠正。

11. I²S DSD FLAG (I²S DSD标志位设置)

- DSD FLAG=PIN15　DSD标志位为15Pin
- DSD FLAG=PIN14　DSD标志位为14Pin



DSD FLAG 15



DSD FLAG 14

12. FN KEY FOR

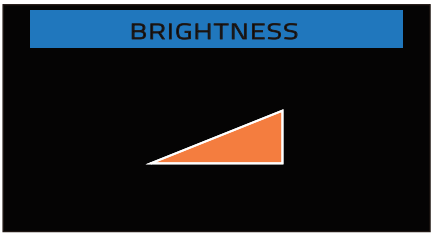
- Switch XLR/RCA （切换XLR/RCA相位）
- ALL Outputs （切换输出控制）
- Bluetooth （蓝牙控制）

13. 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!)

14. BRIGHTNESS(亮度调节)

- LEVEL1-6



15. 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。

蓝牙操作说明

本产品配备了**蓝牙按键**, 就是遥控器上的**FN按键**,
这个按键的功能包括:

短按: 直接切换到蓝牙输入,如果蓝牙失去连接, 则为重新连接;
长按: 断开当前设备, 允许配对其它设备

- **连接:** 将输入源切换至蓝牙，打开手机蓝牙功能，搜索“**VMV D2**”，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, **短按遥控器的蓝牙按键(FN)**就可以重新连接.

- **连接新设备: 长按遥控器的蓝牙按键(FN)。**在清除配对后，部分手机可能会出现无法再搜索到“VMV D2”，此时需要将手机保存的蓝牙设备“VMV D2”删除掉，然后再搜索配对。

恢复出厂设置

机器在未通电状态下，按住电源键再通电，直到显示屏显示logo之后，松开按键。

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

- 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；
- 用户私自拆机、改装、维修；
- 使用非指定或许可的配件造成损坏的；
- 机身的QC或保修贴损毁；
- 不能出示有效购机凭证；
- 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。

Safety notes

CAUTION:

TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER(OR BACK).

The lightning flash with arrowhead symbol,with in an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Safe use only under elevation 2000m.

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

Features

- Support MQA decoding.
- Flagship DAC chip AK4499, the audio industry's highest performance.
- The THD+N is as low as 0.000068% (-123dB)!
  When using A-weighted measurement, it is as low as 0.000058% (-124dB)!
- Dynamic range up to 131dB!
- USB uses the second XMOS XU216,support native DSD and 32bit 768kHz!
- The clock system uses 2 ACCUSILICON ultra-low phase noise crystal oscillators.
- Using ALTERA's high-speed CPLD to process the clock and reduce the JITTER.
- Specially designed and enhanced power supply system provides ultra-low noise power supply with output noise as low as 1.8uVrms!
- The latest Bluetooth supports LDAC, APTX / HD, SBC, AAC and the industry's highest specification 24bit / 192kHz UAT format!
- Support LVDS level differential I^2S reception (using HDMI interface), it can accept the lowest jitter digital audio!
- Users can update the system and USB firmware through the USB interface.
- Using color LCD screen and newly developed user interface, full-function remote control.
- Use USA ti's opa1611, opa1612 top-level op amp.
- Using lots of audiophile grade components, high precision, low temperature drift and resistors and capacitor!

Specification

Input	USB / Optical / Coaxial / I²S / Bluetooth / AES/EBU		
Output	RCA /XLR		
Clock	BNC(50 Ohms)		
Clock frequency	10MHz / 11.2896MHz / 12.288MHz / 16.9344MHz		
	25MHz / 27MHz / 33.8688MHz		
THD+N	0.000068%(-123dB)		
	0.000058%(-124dB) (A-WTD)		
Dynamic range	XLR		131dB
	RCA		125dB
SNR	131dB		
USB transmission	Asynchronization		
USB compatibility	Windows 7 / 8 / 8.1 / 10, Mac OSX、Linux		
Bit depth	USB / I²S		1bit , 16 ~ 32bit
	Optical / Coaxial / AES(EBU)		1bit , 16 ~ 24bit
Sampling rate	USB / I²S	PCM	44.1 ~ 768kHz
		DSD	2.8224 ~ 22.5792MHz
	Optical / Coaxial / AES(EBU)	PCM	44.1 ~ 192kHz

Bluetooth specification :

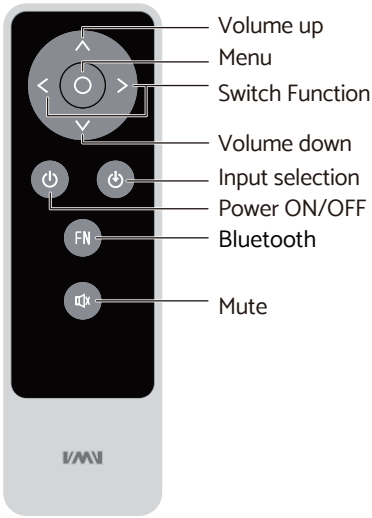
UAT	24bit/192kHz (1200kbps/900kbps/600kbps)
LDAC	24bit/96kHz (990kbps/660kbps/330kbps)
aptX-HD	24bit/48 kHz_576kbps
aptX	16bit/44.1 kHz_352kbps
SBC	16bit/44.1 kHz_328kbps
AAC	16bit/44.1 kHz_320kbps
Power Consumption	<10W
Standby power	<0.5W
Size	280X39X240mm (WxHxD)
Weight	3kg

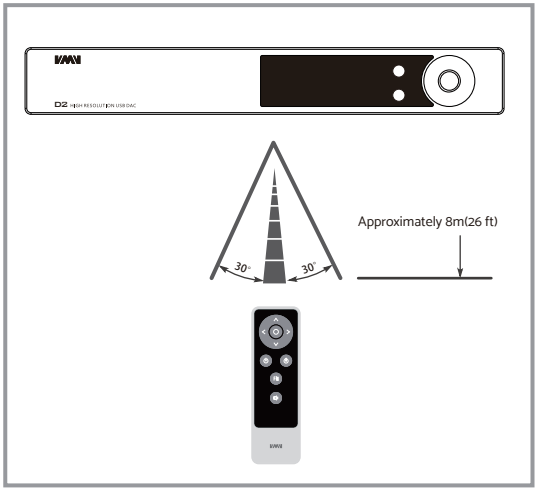
Remote Control

Install 2 x AAA batteries as instructions

When using the remote control, point it toward the remote con-trol signal receiver on the main unit from a distance of 5 m (16 ft) or less. Do not place obstructions between the main unit and the remote control.

The remote control might not work if the remote control signal receiver on the unit is exposed to direct sunlight or bright light. If this occurs, try moving the unit.
Beware that use of this remote control could cause the unin-tentional operation of other devices that can be controlled by infra.





About MQA

SMSL VMV D2 includes MQA technology, which enables you to play back MQA audio files and streams, delivering the sound of the original master recording.
The LED glows green or blue to indicate that the unit is decoding and playing an MQA stream or file, and denotes provenance to ensure that the sound is identical to that of the source material. It glows blue to indicate it is playing an MQA Studio file, which has either been approved in the studio by the artist/producer or has been verified by the copyright owner.

MQA files playback

- The D1se supports MQA decoding on the USB interface.
- D1se's MQA playback does not require additional software. You can use foobar2000 or Audirvana for MQA playback as it supports ASIO or WASAPI audio output. When playing MQA audio, it is suggested to adjust the volume of the computer to the maximum for the best audio output.
- The D1se LED next to MQA logo glows green or blue to indicate that the unit is decoding and playing an MQA stream or file, and denotes provenance to ensure that the sound is identical to that of the source material. It glows blue to indicate it is playing an MQA Studio file, which has either been approved in the studio by the artist/producer or has been verified by the copyright owner.
- When playing an MQA file, the sampling rate of the original master recording is displayed.

Functions

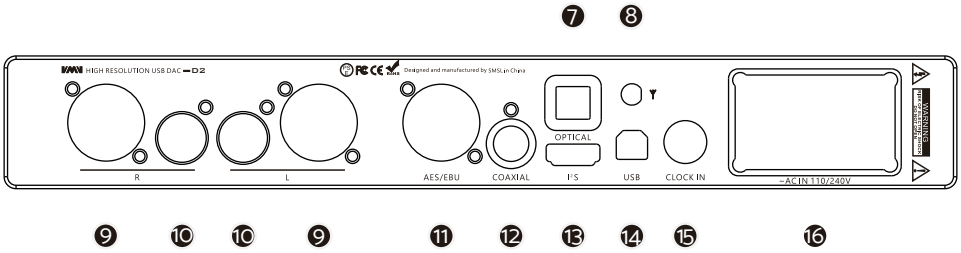
Main unit front

1. Multi-function knob
2. LED
3. Display
4. Input source select
5. Remote window
6. FN key

*** Note: Knob**

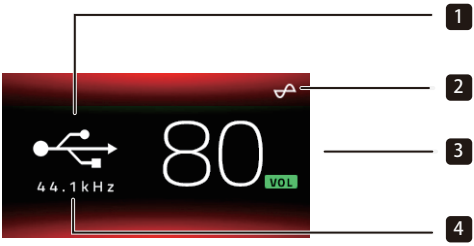
1. Konb: Volume/Menu up or down
2. Button: Press to Menu/Enter
   Hold to Return or Power ON/OFF

Main unit back



7. Optical input
8. Remote window
9. Balanced output
10. RCA output
11. AES/EBU input
12. Coaxial input
13. I²S input
14. USB input
15. Clock input
16. Power input

Operation Instructions



Main Display

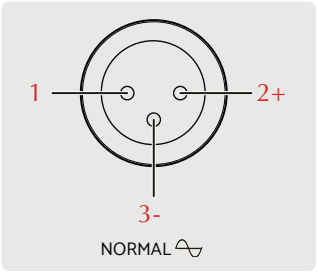
1. Input selection
2. Audio output phase
3. Volume
4. Audio format / Sampling rate

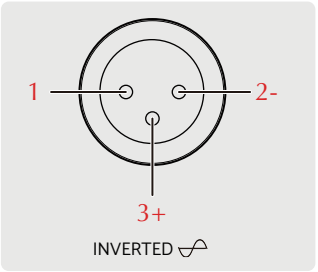
1. INPUT

- USB AUDIO
- OPTICAL
- COAXIAL
- ABE/EBU
- I²S(HDMI)
- BLUETOOTH

2. OUTPUTS

- ALL Normal
- XLR Normal
- RCA Normal
- ALL Inverted
- XLR Inverted
- RCA Inverted





3. CLOCK MODE

- NORMAL
- EXTERNAL (USB)
  (This setting requires an external input clock signal, which only works for the USB input. The internal clock is used for other inputs.)
- EXTERNAL (ALL)
  (This setting requires an external input of clock signal, which works on all inputs. When using, the signal source and D2 must use the same clock source at the same time to work synchronously, otherwise it will cause noise!)

4. CLOCK FREQUENCY

- 10.0000MHz
- 11.2896MHz
- 12.2880MHz
- 16.9344MHz
- 25.0000MHz
- 27.0000MHz
- 33.8688MHz
- 256fs AUTO

5. SPDIF MODE

This setting is only valid for optical/coaxial interfaces which using SPDIF protocol;

- NORMAL
  NORMAL mode, only use the digital receiver chip (DIR) to process the SPDIF signal, used in most occasions
- PROCESSOR
  PROCESSOR mode, in this mode D2 will use the XMOS processor to process the optical/coaxial signal, so that it can have more powerful computing power and can handle various complex tasks including MQA, DoP, in this mode , Play DoP audio, the DSD icon will be displayed correctly on the display.

Note: do not switch this mode frequently, try to restart the machine after switching this mode, otherwise it may cause output noise.

6. PCM FILTER

- SHARP
- SLOW
- SHORT SHARP
- SHORT SLOW
- SUPER SLOW
- LOW DISPERSION SHORT

7. DSD FILTER

- NARROW (DSD64/37kHz , DSD128/74kHz)
- WIDE (DSD64/65kHz , DSD128/131kHz)

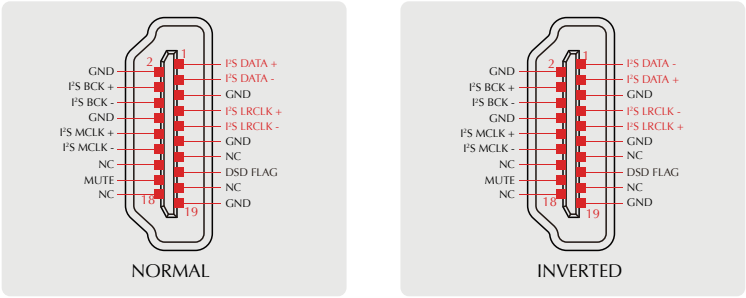
Note: The frequency respondse of DSD256 is 238kHz, DSD512 is 476kHz.

8. PRE MODE

- VOLUME VARIABLE
- VOLUME FIXED

9. I²S MODE

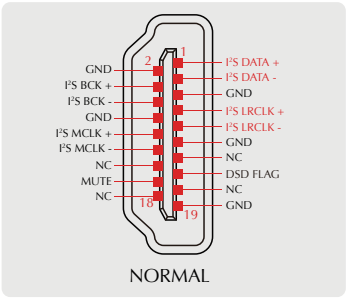
- NORMAL
- INVERTED



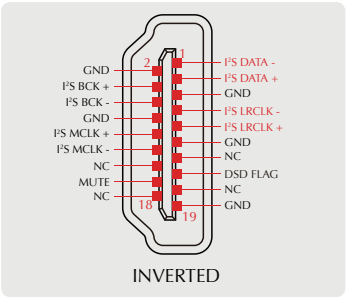
Note: This option is used to match different I²S interface standards, please check the interface definition of the signal source before use

10. 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)



NORMAL

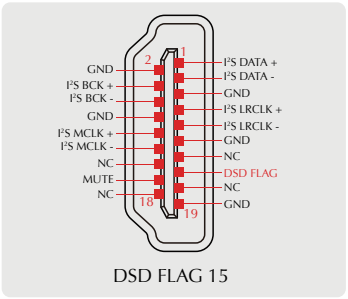


INVERTED

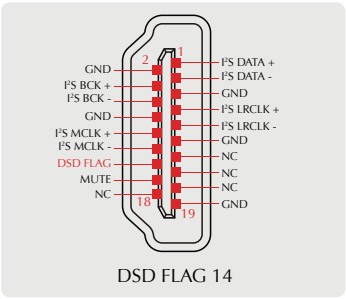
Note: This option is used to match different I²S interface standards, please check the interface definition of the signal source before use

11. I²S DSD FLAG

- DSD FLAG=PIN15
- DSD FLAG=PIN14



DSD FLAG 15



DSD FLAG 14

12. FN KEY FOR

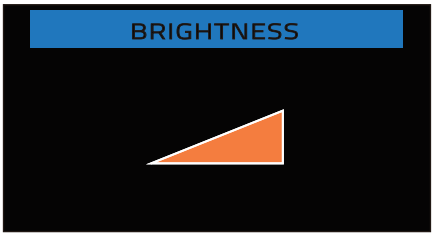
- Switch XLR/RCA
- ALL Outputs
- Bluetooth

13. DIMMER

- 5second ~ 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.)

14. BRIGHTNESS

- LEVEL1-6



15. 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.

Bluetooth operating instructions

This product is equipped with a Bluetooth button, which is the FN button on the remote control,The functions of this button include:

- Short press: Switch directly to Bluetooth input, if Bluetooth loses connection, it is a reconnect,
- Long press: Disconnect the current device and allow pairing with other devices.

Connection:

- Step 1: Switch the input source in the SETTING MENU or press the Bluetooth button of the remote,
- Step 2: Turn on the Bluetooth function of the mobile phone, search for "VMV D2", and tap to pairing. When the mobile phone displays "connected", it has been successfully connected.

Re-connection:

When you had lost the connection with the D2, for example,going out, and back home, some phones will not re-connect the D2 if the D2 has not been re-boot, so you can press the Bluetooth button (FN) on the remote to Re-connect.

Clear pairing: Long press the"Bluetooth" button(FN) on the remote control. After clearing the pairing, some phones may no longer be able to search for "VMV D2". In this case, you need to delete the Bluetooth device "VMV D2" which saved in the phone, and then search and pairing again.

Factory Reset

Connect the power cord when pressing the power button, until the screen shows logo.

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.