

S.M.S.L



RAW-DAC1

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 1.0



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 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

- Both USB, optical and coaxial support MQA and MQA-CD;
- Using AK4191+AK4499EX to play the full performance of Chips, the distortion is as low as 0.00006%(-124dB);
- XMOS XU-316, true 32bit USB processing, supports DoP and Native DSD, and PCM reach up to 768kHz and DSD512;
- The newly self-developed CK-03 clock processing circuit greatly reduces the clock jitter;
- USB, Optical and Coaxial support DSD transmission, Coaxial, Optical support DOP64;
- Use tempered glass display panel for higher light transmission and longer service life;
- Built-in shielding, low noise power supply processing, while improving power supply efficiency, lower power consumption;
- Specially designed discrete component linear regulated power supply and multiple low noise regulated power supplies to provide low noise power for analog circuits;
- The latest Bluetooth supports LDAC, APTX/HD, SBC, AAC;
- High-quality gold-plated input and output jacks;
- Using a fully laminated 2.33-inch LCD screen;
- JAS Hi-Res certification;
- Equipped with remote control and full-featured remote control



Specifications

Input	USB/Optical 1/Coaxial 1/Optical 2/Coaxial 2/1²S/Bluetooth			
Output	RCA / XLR			
Line output	XLR	5Vrms		
amplitude	RCA	2.5Vrms		
THD+N	0.00006%(-124dB)(UN-WTD)			
Dynamic range.	XLR	132dB		
	RCA	127dB		
SNR	XLR	132dB		
	RCA	127dB		
USB Spec	USB 2.0 Asynchronization			
USB compatibility	Windows 7 / 8 / 8.1 / 10(Needs Driver)			
	Mac OSX 10.6 above, Android system, iOS, Linux(Driveless)			
MQA decoder	USB / Optical / Coaxial			
Sampling rate	USB	PCM	44.1~768kHz(32bit)	
& Bit Width		DSD	2.8224~22.5792MHz(1bit)	
	DoP	2.8224~11.2896MHz(1bit)		
	Optical / Coaxial	PCM	44.1~192kHz(24bit)	
		DoP	2.8224MHz(1bit)	
Bluetooth specification	5.1(support SBC,AAC,aptX,aptX HD,LDAC)			
Power Consumption	<10W			
Standby power	<0.5W			
Size	219x180x45mm (WxHxD)			
Weight	1.33kg/2.93lbs			

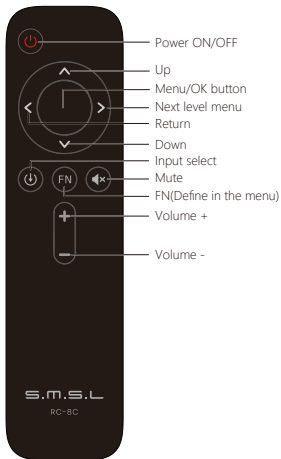
SMSL reserves the right to make improvements which may result in specification or feature changes without notice.

Remote control

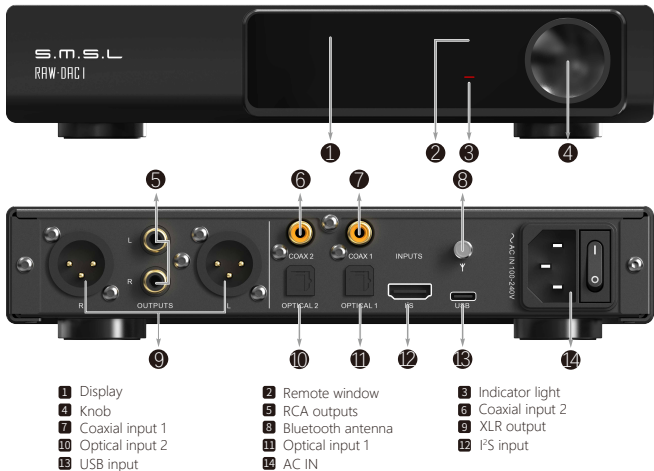
- If the remote control is still ineffective when it is close to the machine, replace it with a new battery.
- If the user does not use the remote control for a long time, remove the battery of the remote control.
- Dispose of used batteries in accordance with local regulations on battery disposal.

Operating the remote control

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



PARTS



Knob

Knob: 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 S.M.S.L RAW-DAC1, 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 "S.M.S.L RAW-DAC1", in which case you need to delete the Bluetooth device "S.M.S.L RAW-DAC1" saved by the phone and then search for pairing.



Instructions

INPUTS

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

OUTPUTS

- ALL LINE OUT
- BALANCED
- UNBALANCED

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.

PCM FILTER

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

DSD FILTER

- WIDE
- NARROW

PRE MODE

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

- VARIABLE: The output interface volume is controlled.
- FIXED: The output interface 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.

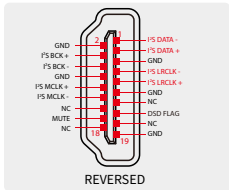
Instructions

FN KEY FOR

- OUTPUTS
- BLUETOOTH
- PHASE

I²S MODE

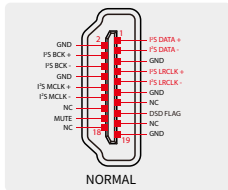
- NORMAL (NORMAL, PS AUDIO FORMAT)



LANGUAGE

- ENGLISH
- CHINESE
- JAPANESE
- RUSSIAN

- REVERSED (INVERTED, DATA AND LRCK INVERTED)



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

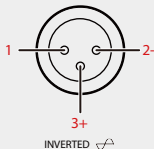
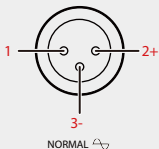
- DSDL=PCM DATA (The DSD left channel using the PCM DATA pin)
- DSDL=PCM LRCK (The DSD left channel using the PCM LRCK pin)

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+)



NOTE: When inverting the XLR phase, the RCA phase will also be inverted.

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

UI STYLE

- UNIVERSAL
- GRAPHICS

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 SU-9 ULTRA 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

- SMSL RAW-DAC1 supports MQA decoding with USB, optical fiber and coaxial!
- SMSL RAW-DAC1 '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.