

S.M.S.L



SU-9

使用说明书

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。

产品特点

- 支持MQA解码；
- 最新研发的智能温度补偿系统(ITS), 确保产品一直处于最佳性能状态；
- 使用美国ESS公司高端ES9038PRO D/A芯片；
- 搭配使用ES9311, ESS高性能DAC专用电源芯片ES9311, 电源噪声低至1uVrms, 将ES9038PRO的性能推到极限；
- USB使用XMOS XU-216, 真正的32bit USB方案, 支持DoP和原生DSD PCM最高支持到768kHz, DSD支持到DSD512；
- 使用了超低相噪和优化的时钟处理电路处理, 以达到超低的时钟抖动；
- 全部输入输出均支持DSD传输, 同轴, 光纤支持DoP64；
- 使用钢化玻璃显示面板, 更高的透光率, 更长的使用寿命；
- 内置带屏蔽, 低噪声电源处理, 同时提高电源效率, 功耗更低；
- 特别设计的分立元件线性稳压电源和多个低噪声稳压电源, 为模拟电路提供低噪声电源；
- 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！
- 高品质镀金输入输出连接端子；
- 使用3颗高端双运放OPA1612及大量发烧元器件；
- 1.9吋的液晶显示屏；
- 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/蓝牙		
输出方式	单端线路/平衡线路		
THD+N	0.00009% (-121dB)		
动态范围	平衡线路	130dB	
	单端线路	123dB	
信噪比	130dB		
输出阻抗	XLR	207Ω	
	RCA	142Ω	
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	1bit, 16~32bit	
	光纤/同轴	1bit, 16~24bit	
采样率	USB	PCM	44.1~768kHz
		DSD	2.8224~22.5792MHz
	光纤/同轴	PCM	44.1~192kHz
		DSD	DSD64(DoP)
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	5W		
待机功耗	<0.5W		
体积	187.5X154X40mm(WxHxD)		
重量	0.79kg		

温馨提示

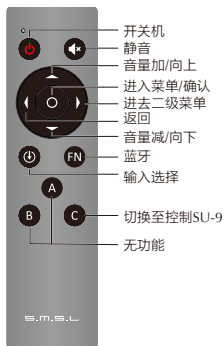
固件及驱动下载:

<http://www.smsl-audio.com/cn/download.asp>

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。

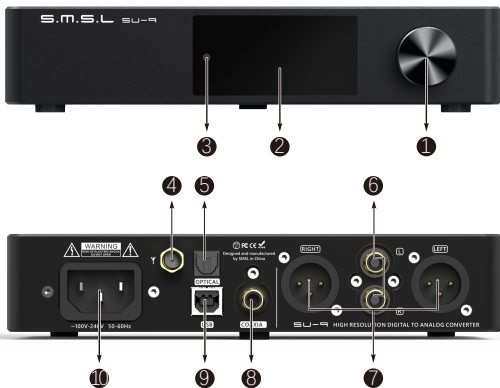
遥控器的使用



注意

1. 遥控器请使用2节7号(AAA)电池
2. 第一次操作SU-9时，先按C键

部件介绍



- | | | |
|----------|--------|----------|
| 1 功能旋钮* | 2 显示屏 | 3 红外接收窗 |
| 4 蓝牙天线** | 5 光纤输入 | 6 单端线路输出 |
| 7 平衡线路输出 | 8 同轴输入 | 9 USB输入 |
| 10 电源输入 | | |

功能旋钮*

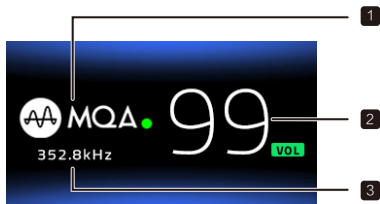
- **旋钮:** 音量加减, 菜单切换, 功能选择。
- **按键:** 短按, 进入菜单, 确认; 长按, 退出菜单, 开关机。

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 SU-9", 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 SU-9”, 此时需要将手机保存的蓝牙设备“SMSL SU-9”删除掉, 然后再搜索配对。

操作说明

1. 主界面



- 1、音频格式
- 2、音量显示
- 3、采样率

菜单树

SU-9 MENU

- INPUT (输入方式)
 - USB AUDIO (USB输入)
 - OPTICAL (光纤输入)
 - COAXIAL (同轴输入)
 - BLUETOOTH (蓝牙输入)
- PCM FILTER (PCM滤波器)
 - Fast Linear(快速滚降, 线性相位滤波器)
 - Slow Linear (慢滚降, 线性相位滤波器)
 - Fast Minimum (快速滚降, 最小相位滤波器)
 - Slow Minimum(慢滚降, 最小相位滤波器)
 - Apodizing(混合, 快速滚降, 最小相位滤波器)
 - Fast Hybrid(切迹, 快速滚降, 线性相位滤波器)
 - Brickwall(矩形滤波器)
- DSD FILTER (DSD滤波器)
 - 47kHz Cutoff(47kHz频率截止)
 - 50kHz Cutoff(50kHz频率截止)
 - 60kHz Cutoff(60kHz频率截止)
 - 70kHz Cutoff(70kHz频率截止)
- SOUND COLOR (音色)
 - Standard(标准)
 - Rich 1 (丰富1)
 - Rich 2 (丰富2)
 - Rich 3 (丰富3)
 - Tube 1(胆味1)
 - Tube 2(胆味2)
 - Tube 3(胆味3)
 - Crystal 1(通透1)
 - Crystal 2(通透2)
 - Crystal 3(通透3)
- PRE MODE (前级模式)
 - VOL VARIABLE(音量可调)
 - VOL FIXED(音量固定)
- DPLL (DPLL设置)
 - Range 1~15, Lower for Better De-jitter (1~15级, 数字越小时钟抖动越低)
- BRIGHTNESS (亮度)
 - Range 1~6
- RESET (系统复位)
 - Hold button to RESET(长按旋钮中键重置)
- VERSIONS (版本)
 - HW VERSION(硬件版本号)
 - SW VERSION (软件版本号)
 - USB VERSION(USB版本号)

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。SU-9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>

MQA文件播放

- SU-9只有USB接口支持MQA解码，其它接口不支持!
- SU-9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。
- MQA商标旁边的指示灯为绿色或蓝色亮起，表示设备正在解码并播放MQA音频或文件，并且确保输出音质与源素材一致。它呈蓝色亮起，表示它正在播放MQA Studio文件，该文件已经由艺术家/制作人或者版权所有者获得授权。当MQA商标旁边的指示灯发出红色，表示该机器正在发送MQA音频或文件，这就是MQA文件的最后一步。
- 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

功能介绍

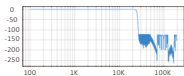
INPUT (输入方式)

- USB (USB输入)
- OPTICAL (光纤输入)
- COAXIAL (同轴输入)
- BLUETOOTH (蓝牙输入)

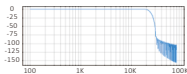
PCM FILTER (PCM滤波器)

(PCM 滤波器, 这项设置只对非MQA的PCM格式有效, 当正在播放MQA格式音频时, 根据MQA方面要求, 数字滤波会切换到MQA特别定制的滤波算法!更好的匹配MQA的音频特性!)

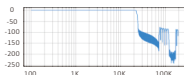
- Fast Linear (快速滚降, 线性相位滤波器)
- Slow Linear (慢滚降, 线性相位滤波器)
- Fast Minimum (快速滚降, 最小相位滤波器)
- Slow Minimum (慢滚降, 最小相位滤波器)
- Fast Hybrid (混合, 快速滚降, 最小相位滤波器)
- Apodizing (切迹, 快速滚降, 线性相位滤波器)
- Brickwall (矩形滤波器)



Fast R-off Linear



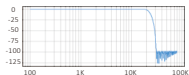
Slow R-off Linear



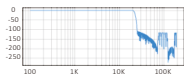
Apodizing



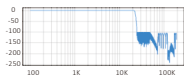
Fast R-off Minimum



Slow R-off Minimum



Fast R-off Hybrid



Brickwall

功能介绍

■ DSD FILTER (DSD滤波器)

DSD总共有4种数字滤波方式，它的作用是数字运算的方式把音频外的杂波过滤掉，分别为：

- 47kHz Cutoff (47kHz频率截止)
- 50kHz Cutoff (50kHz频率截止)
- 60kHz Cutoff (60kHz频率截止)
- 70kHz Cutoff (70kHz频率截止)

■ 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ES9038PRO 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！

■ PRE MODE(前级模式)

PRE MODE为输出接口的音量调节功能开关：

- Vol Fixed:输出接口音量是固定的。
- Vol Variable:输出接口音量是受控的。

■ DPLL (DPLL设置)

- 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。)

■ BRIGHTNESS (显示屏亮度设置)

- LEVEL 1 ~ LEVEL 6

■ RESET (系统复位)

- 在此界面下，长按旋钮中键，系统会重置所有设定，包括蓝牙配对状态。

■ SYSTEM (系统版本信息)

- 本页菜单显示系统信息，例如型号名称，版本号等.....

S.M.S.L



SU-9
USER MANUAL

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;
- The newly developed intelligent temperature compensation system(ITS) ensures that the product is always in the best performance state;
- The top performance D/A chip ES9038PRO from ESS Technology;
- The high-performance power supply chip ES9311, the noise of ES9311 is as low as 1uVrms, to push ES9038PRO to the limit;
- XMOS XU-216, true 32bit audio processing, supports DoP and Native DSD, and reaches 32bit/768kHz and DSD512;
- Ultra-low phase noise and optimized clock processing circuit are used to achieve ultra-low clock jitter;
- All inputs support DSD streaming, including coaxial and optical (DoP64);
- Use tempered glass display panel for higher light transmission and longer service life;
- Built-in shielded, low noise power supply processing, while improving power 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 and the industry's highest specification 24bit / 192kHz UAT format!
- High quality gold-plated input and output jacks;
- 3 high-end dual op-amps OPA1612 and a lot of audio grade components are used;
- 1.9 inch TFT LCD display;
- JAS Hi-Res certification;
- Equipped with remote control and full-function remote control.

Specifications

Input	USB / Optical / Coaxial / Bluetooth	
Output	RCA / XLR	
THD+N	0.00009%(-121dB)	
Dynamic range	XLR	130dB
	RCA	123dB
SNR	130dB	
Output impedance	XLR	207 Ω
	RCA	142 Ω
USB transmission	Asynchronization	
USB compatibility	Windows 7 / 8 / 8.1 / 10, Mac OSX、Linux	
Bit depth	USB	1bit, 16 ~ 32bit
	Optical / Coaxial	1bit, 16 ~ 24bit
Sampling rate	USB	PCM 44.1 ~ 768kHz
		DSD 2.8224 ~ 22.5792MHz
	Optical / Coaxial	PCM 44.1 ~ 192kHz
		DSD DSD64(DoP)

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	5W
Standby power	<0.5W
Size	187.5X154X40mm (WxHxD)
Weight	0.79kg

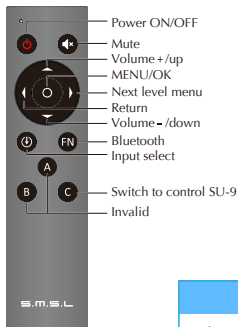
Note

Firmware and driver download:
<http://www.smsl-audio.com/cn/download.asp>

Remote control

- Install 2 x AAA batteries as instructions.
- When using the remote control, point it toward the remote control 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 unintentional operation of other devices that can be controlled by infra.

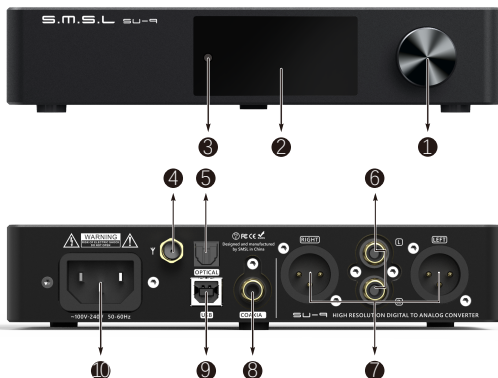
Operating the remote control



Note

1. This remote controller use 2 x R03/AAA batteries.
2. When you first operate SU-9, press the C key first.

Display Interface and Instructions



- | | | |
|-----------------------|-----------------|-----------------|
| 1 Knob* | 2 Display | 3 Remote window |
| 4 Bluetooth antenna** | 5 Optical input | 6 RCA output |
| 7 Balanced output | 8 Coaxial input | 9 USB input |
| 10 AC IN | | |

Note: Knob*

- Knob: Volume/Menu up or down
- Button: Press to Menu/Enter
Hold to Return or Power ON/OFF

Bluetooth operating instructions**

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 "SMSL SU-9", and tap to pairing. When the mobile phone displays "connected", it has been successfully connected.

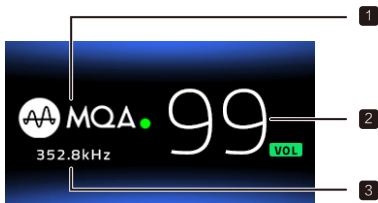
Re-connection:

When you had lost the connection with the SU-9, for example, going out, and back home, some phones will not re-connect the SU-9 if the SU-9 has not been re-boot, so you can press the Bluetooth button on the remote to Re-connect.

Clear pairing: Long press the "Bluetooth" button on the remote control. After clearing the pairing, some phones may no longer be able to search for "SMSL SU-9". In this case, you need to delete the Bluetooth device "SMSL SU-9" which saved in the phone, and then search and pairing again.

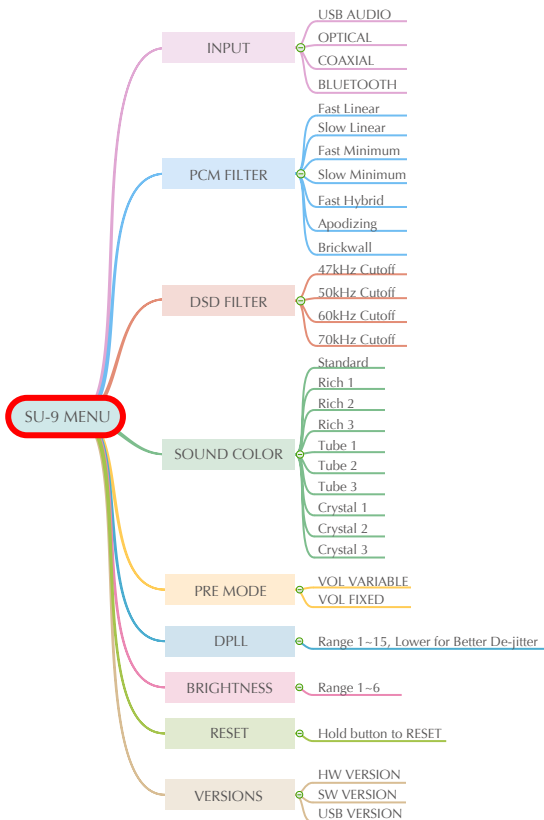
User interface

1. Main



- 1、 Audio format
- 2、 Volume Level
- 3、 Sampling rate

MENU TREE



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 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.

MQA files playback

- The SU-9 supports MQA decoding on the USB interface.
- SU-9'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 SU-9 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. The SU-9 LED next to MQA logo glows magenta to indicate that the unit is rendering an MQA stream or file. This delivers the final unfold of the MQA file.
- When playing an MQA file, the sampling rate of the original master recording is displayed.



Instructions

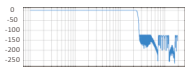
INPUT

- USB
- OPTICAL
- COAXIAL
- BLUETOOTH

FILTER

(This setup is only valid for non-MQA PCM format. Products with a full MQA Decoder unfold the file to deliver the highest possible sound quality. At this level of playback you are hearing what the artists created in the studio – with precise file and platform-specific DAC compensation and management.)

- Fast Linear
- Slow Linear
- Fast Minimum
- Slow Minimum
- Fast Hybrid
- Apodizing
- Brickwall



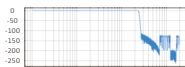
Fast R-off Linear



Slow R-off Linear



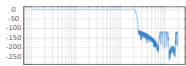
Apodizing



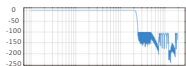
Fast R-off Minimum



Slow R-off Minimum



Fast R-off Hybrid



Brickwall



Instructions

■ DSD FILTER

There are 4 kinds of digital filtering in total. It's the way that the digital operation means the clutter outside the audio filter out, respectively

- 47kHz Cutoff
- 50kHz Cutoff
- 60kHz Cutoff
- 70kHz Cutoff

■ SOUND COLOR

There are 9 sound color settings in SU-9.

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

This setting is using the DSP of ES9038PRO, 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.

■ PRE MODE

Volume control enable or disable.

- Vol Fixed : In this mode, volume is fixed on max output level, and the SU-9 will ignore the volume operations.
- Vol Variable: In this mode, volume can be adjusted by remote controller, and make SU-9 a pre-amplifier.

■ 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.)

■ BRIGHTNESS

- LEVEL 1 ~ LEVEL 6

■ RESET

- In this interface, press and hold the button of the knob, the system will reset all settings, including Bluetooth pairing status.

■ SYSTEM

- This page shows the system information, model name, version...

