S.M.S.L

Hi-Res AUDIO

SU-9n

使用说明书

USER MANUAL

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

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

Ver 1.0

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

- 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-208，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；
- 使用了低相噪晶振和优化的时钟处理电路，大大降低时钟抖动；
- USB、光纤、同轴支持DSD传输，同轴和光纤支持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；
- 高通最新蓝牙支持LDAC，APTX/HD，SBC，AAC；
- 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
输出幅度：			
	前级模式	XLR	4.8Vrms
		RCA	2.3Vrms
	固定模式	XLR	4.3Vrms
		RCA	2.0Vrms
THD+N			0.000065%(-123.5dB)
			0.000055%(-125dB)(A计权)
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 / 11, 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：

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

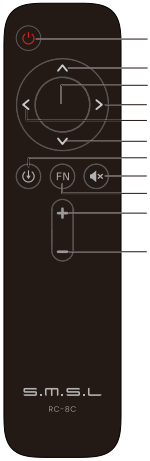
温馨提示

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。

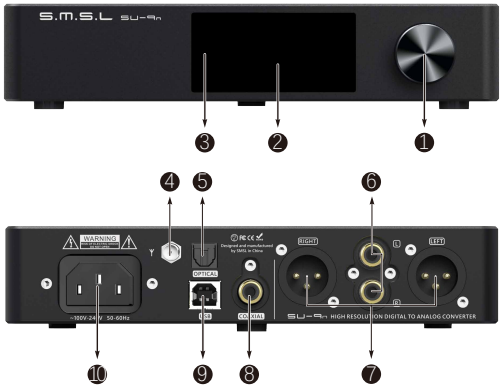
遥控器的使用



注意

遥控器请使用2节7号(AAA)电池

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

操作说明

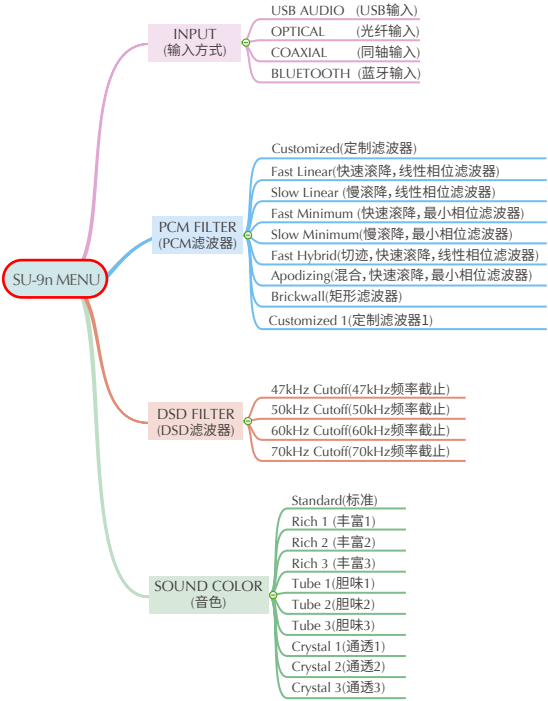
1. 主界面

1、音频格式

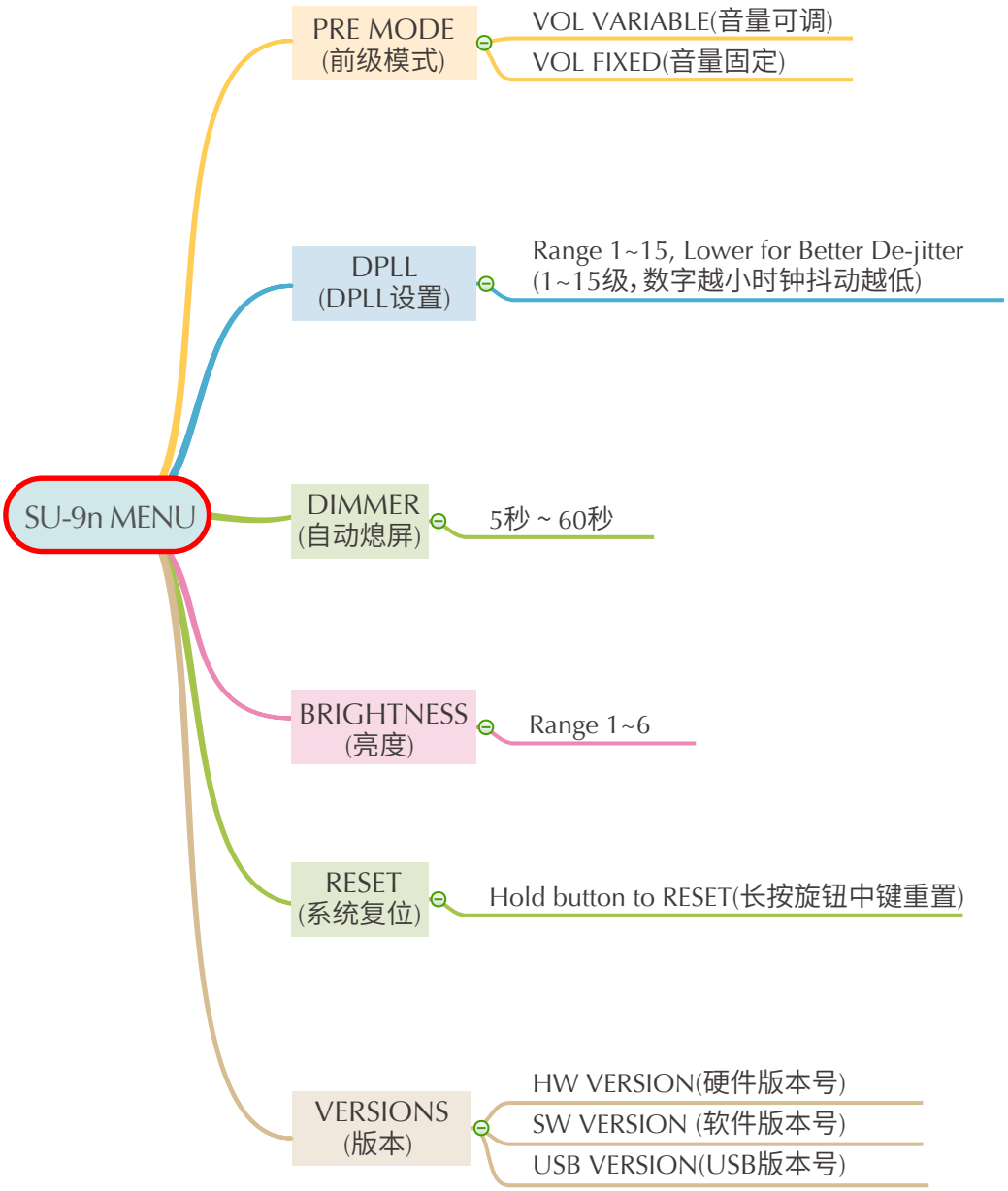
2、音量显示

3、采样率

菜单树


SU-9n 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)
Customized(定制滤波器)
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)
Fast Hybrid(切迹,快速滚降,线性相位滤波器)
Apodizing(混合,快速滚降,最小相位滤波器)
Brickwall(矩形滤波器)
Customized 1(定制滤波器1)
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)

菜单树


SU-9n MENU
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)
DIMMER
(自动熄屏)
5秒 ~ 60秒
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)

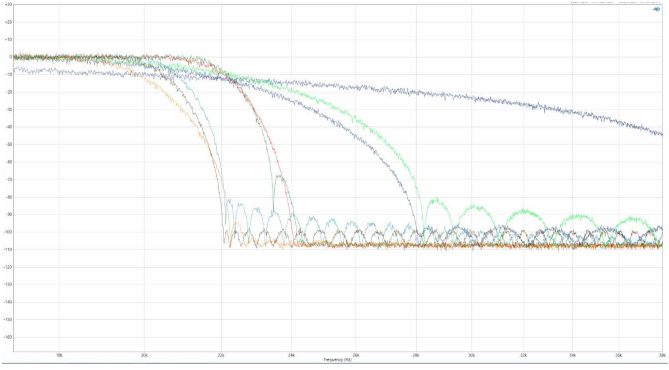
功能介绍

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)

- Customized (定制滤波器)
- 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 (切迹，快速滚降，线性相位滤波器)
- Fast Hybrid (混合，快速滚降，最小相位滤波器)
- Brickwall (矩形滤波器)
- Customized 1 (定制滤波器1)



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!

功能介绍

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。)

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

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.

VERSIONS (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.....

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 alesperson 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 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.

Features

- 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-208, true 32bit audio processing, supports DoP and Native DSD, and reaches 32bit/768kHz and DSD512;
- Ultra-low phase noise and optimized clock system to achieve ultra-low clock jitter;
- USB, optical fiber, coaxial support DSD transmission, coaxial and optical fiber support 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.
- Qualcomm's latest Bluetooth chip supports LDAC 24bit/96kHz, APTX/HD, SBC, AAC;
- 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
Output level:			
	Pre mode	XLR	4.8Vrms
		RCA	2.3Vrms
	Fixed mode	XLR	4.3Vrms
		RCA	2.0Vrms
THD+N			0.000065%(-123.5dB)
			0.000055%(-125dB)(A-Weighted)
Dynamic range		XLR	130dB
		RCA	123dB
SNR			130dB
Output impedance		XLR	207Ω
		RCA	142Ω
USB transmission			Asynchronization
USB compatibility			Windows 7 / 8 / 8.1 / 10 / 11, 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:

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 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.

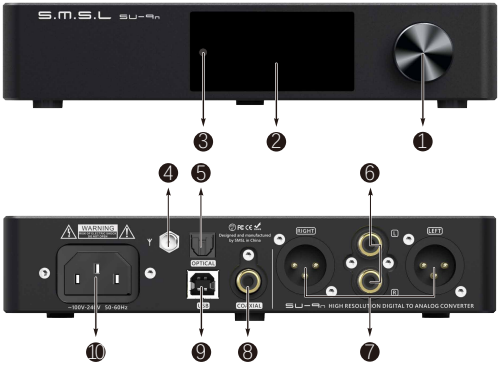
Operating the remote control

开关机
向上
进入菜单/确认
进去二级菜单
返回
向下
输入选择
静音
FN按键
音量加
音量减

Note

This remote controller use 2 x R03/AAA batteries.

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*
- Konb: 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-9n", 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-9n, for example,going out, and back home, some phones will not re-connect the SU-9n if the SU-9n 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-9n". In this case, you need to delete the Bluetooth device "SMSL SU-9n" which saved in the phone, and then search and pairing again.

User interface

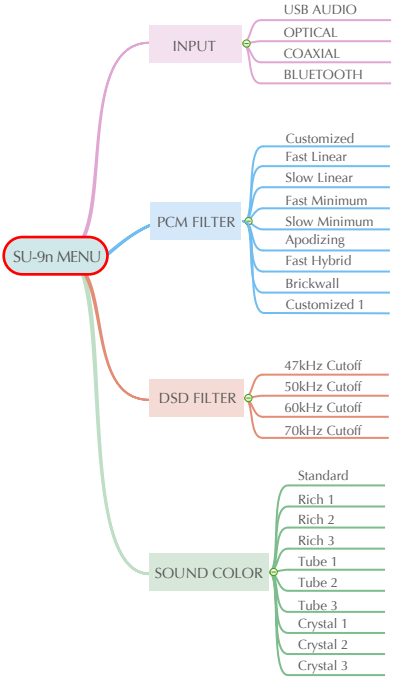
1. Main

1、Audio format

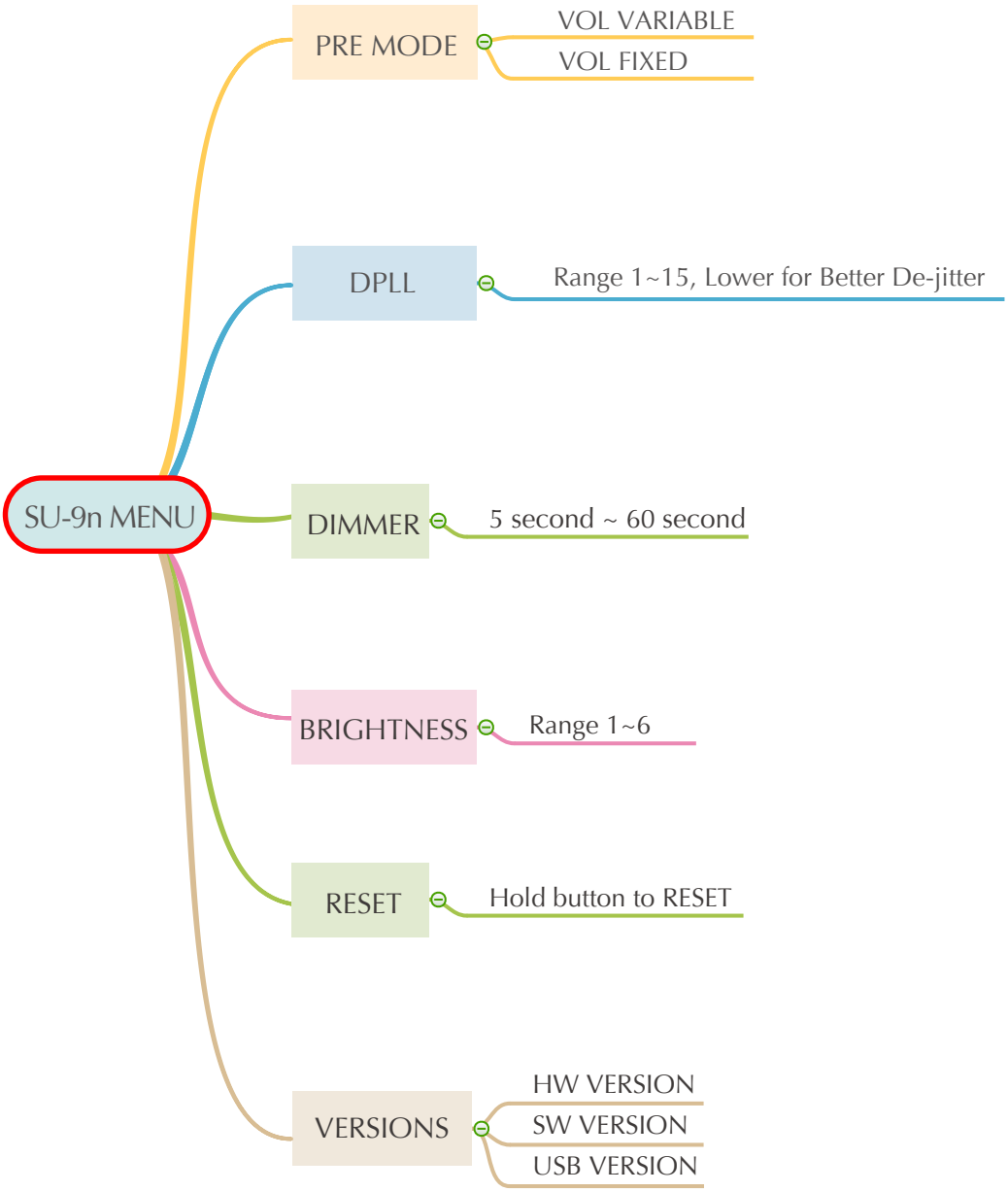
2、Volume Level

3、Sampling rate

MENU TREE


SU-9n MENU
INPUT
USB AUDIO
OPTICAL
COAXIAL
BLUETOOTH
PCM FILTER
Customized
Fast Linear
Slow Linear
Fast Minimum
Slow Minimum
Apodizing
Fast Hybrid
Brickwall
Customized 1
DSD FILTER
47kHz Cutoff
50kHz Cutoff
60kHz Cutoff
70kHz Cutoff
SOUND COLOR
Standard
Rich 1
Rich 2
Rich 3
Tube 1
Tube 2
Tube 3
Crystal 1
Crystal 2
Crystal 3

MENU TREE


SU-9n MENU
PRE MODE
VOL VARIABLE
VOL FIXED
DPLL
Range 1~15, Lower for Better De-jitter
DIMMER
5 second ~ 60 second
BRIGHTNESS
Range 1~6
RESET
Hold button to RESET
VERSIONS
HW VERSION
SW VERSION
USB VERSION

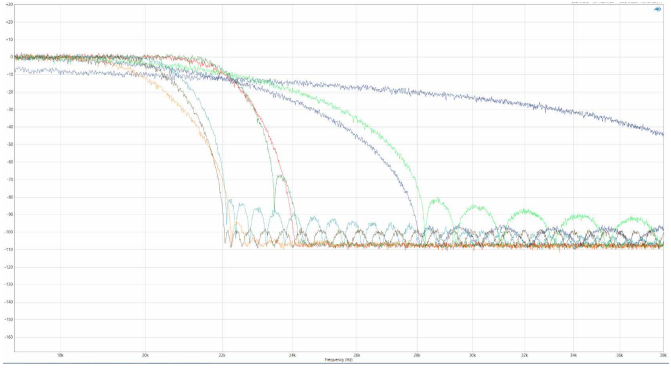
Instructions

INPUT

- USB AUDIO
- OPTICAL
- COAXIAL
- BLUETOOTH

PCM FILTER

- Customized
- Fast Linear
- Slow Linear
- Fast Minimum
- Slow Minimum
- Apodizing
- Fast Hybrid
- Brickwall
- Customized 1



DSD FILTER

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

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

SOUND COLOR

There are 9 sound color settings in SU-9n.

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

This setting is usingthe DSP of ES9038PRO,to make some different sound color, all of these settings will not change the frequency res ponse curve.When set to "Standard", this setting will be bypassed.

Instructions

PRE MODE

Volume control enable or disable.

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

This DPLL setting is a special function of ESS series products. It can adjust the internal DPLL digital phase locked loop circuit Bandwidth, so that the chip achieves a balance between anti clock jitter and input tolerance.

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. Increase this value can avoid the sound interruption! Especially when using TV as signal source!

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

RESET

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

VERSIONS

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