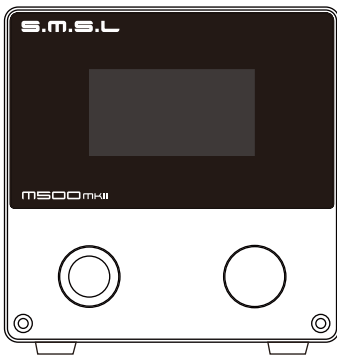


## MS00mkII

## 使用说明书



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,  
如需最新说明, 请到<https://smsl-audio.com/portal/product/support>  
下载最新版本的说明书。

## 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。

## 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.
- 第三代ES9038PRO电路设计,失真度低至惊人的-123dB, 并且更加稳定；
- 全新的PLFC耳放电路,使得耳放在16欧负载下依然可以获得超过2W的输出功率和低于-120dB的失真度!
- 全新自主研发的CK-02时钟处理电路, 大大降低时钟抖动；
- 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；
- 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 .....	单端耳放 / 单端线路 / 平衡线路
THD+N .....	0.00006%(-123dB)(UN-WTD)
HPA THD+N.....	0.0001%(-120dB)(UN-WTD)
耳放输出功率.....	2Wx2(16Ω) 1Wx2(32Ω)
耳放增益控制 .....	低增益 0dB 高增益 +9dB
动态范围 .....	131dB(XLR) 126dB(RCA)
信噪比 .....	131dB(XLR) 126dB(RCA)
USB传输方式 .....	USB2.0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 decoder.....	USB / 光纤 / 同轴
MQA-CD decoder.....	光纤 / 同轴
采样率与位深:	
USB           PCM	44.1~768kHz(32bit)
DSD	2.8224~22.5792MHz (1bit)
光纤/同轴	44.1~192kHz(24bit)
DoP	DoP256(USB),DoP64(光纤/同轴)
蓝牙规格:	5.1
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 .....	85x88x197mm (WxHxD)
重量 .....	0.90kg/1.98lb

## 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。

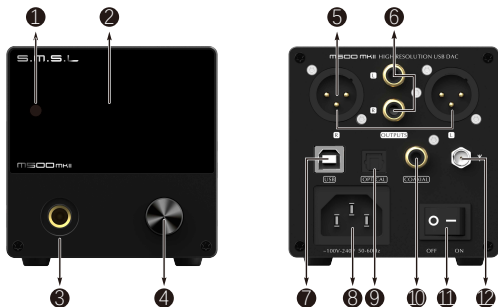
## 遥控器的使用



## 注意

遥控器请使用2节7号(AAA)电池

## 部件介绍



- ① 接地
- ② 正相
- ③ 负相

- ① 红外接收窗
- ② 显示屏
- ③ 6.35mm耳机输出
- ④ 功能旋钮\*
- ⑤ 平衡线路输出
- ⑥ 单端线路输出
- ⑦ USB输入
- ⑧ 电源输入
- ⑨ 光纤输入
- ⑩ 同轴输入
- ⑪ 电源开关
- ⑫ 蓝牙天线

### 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 M500 MKII", 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:** 蓝牙输入状态下, 长按FN键。在清除配对后, 部分手机可能会出现无法再搜索到“SMSL M500 MKII”, 此时需要将手机保存的蓝牙设备“SMSL M500 MKII”删除掉, 然后再搜索配对。

### 注意事项

- 连接耳机前请调小音量, 以免音量过大损坏耳机;
- 根据健康专家的建议, 请勿长时间聆听耳机以免影响听力。

## 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)

### ■ OUTPUTS (输出方式)

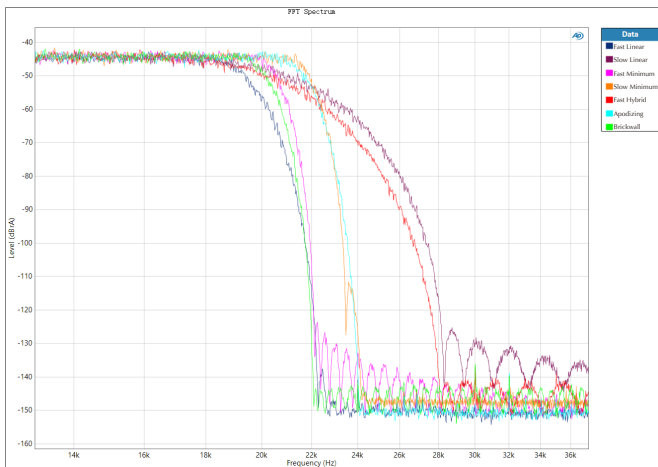
- XLR+RCA(全部输出)
- HPA (耳机输出)
- XLR (平衡输出)
- RCA (单端线路输出)

### ■ GAIN (增益菜单)

- LOW (+ 0dB)
- HIGH (+ 9dB)

### ■ 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)
- 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)



## ■ 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。

### ■ 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)

NORMAL模式, 仅使用数字接收芯片对SPDIF信号进行处理, 使用于大部分场合, 在此模式下支持DOP的播放。

- PROCESSOR (处理器模式)

PROCESSOR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, 此时, 系统可以支持MQA全解码, MQA-CD, DOP64。

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。

## 功能介绍

### ■ 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

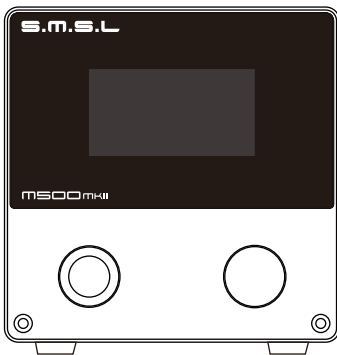
### ■ RESET (系统复位)

- 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.



# M500mkII

## USER MANUAL



The contents of this manual may change with the version,  
if there is any change without notice,  
please go to <https://www.smsl-audio.com/portal/product/support>  
Download the latest version of the 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

- 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;
- The 3rd ES9038PRO circuit design has a surprisingly low distortion of -123dB and is more stable;
- The new PLFC headphone amplifier circuit enables the headphone to obtain more than 2Wrms output power and less than -120dB distortion under 16  $\Omega$  load!
- The new self-developed CK-02 clock processing circuit greatly reduces clock jitter;
- XMOS XU-216, true 32bit audio processing, supports DoP and Native DSD, and reaches 32bit/768kHz and DSD512;
- USB, optical, coaxial support DSD and MQA decode, coaxial and optical support DOP64 and MQA-CD.
- Qualcomm's latest Bluetooth chip supports LDAC 24bit/96kHz, APTX/HD, SBC, AAC;
- Specially designed discrete component linear regulated power supply and multiple low noise regulated power supplies to provide low noise power for analog circuits.
- 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;
- 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

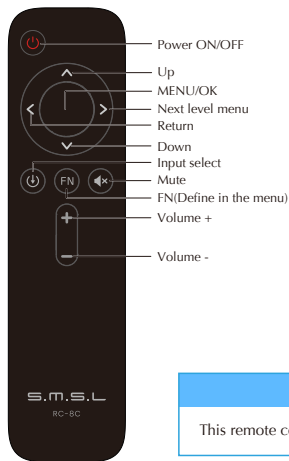
Input .....	USB / Optical / Coaxial / Bluetooth
Output .....	6.35 Phone Jack / RCA / XLR
THD+N .....	0.00006%(-123dB)(UN-WTD)
HPA THD+N .....	0.0001%(-120dB)(UN-WTD)
HPA power .....	2Wx2(16 $\Omega$ ),1Wx2(32 $\Omega$ )
HPA gain .....	0dB(Low),+9dB(High)
Dynamic range .....	131dB(XLR),126dB(RCA)
SNR .....	131dB(XLR),126dB(RCA)
USB Spec.....	USB 2.0 Asynchronization
USB compatibility .....	Windows 7 / 8 / 8.1 / 10(Needs Driver) Mac OSX10.6 or Later、Linux(Driverless)
MQA decoder .....	USB / Optical / Coaxial
MQA-CD decoder .....	Optical / Coaxial
DoP decoder .....	USB / Optical / Coaxial
Sampling rate & Bit Width:	
USB   PCM	44.1 ~ 768kHz(32bit)
DSD	2.8224 ~ 22.5792MHz(1bit)
Optical / Coaxial	44.1 ~ 192kHz(24bit)
DoP	DoP256(USB),DoP64(Optical / Coaxial)
Bluetooth:	5.1
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 .....	85x88x197mm (WxHxD)
Weight .....	0.90kg/1.98lb

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

## 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

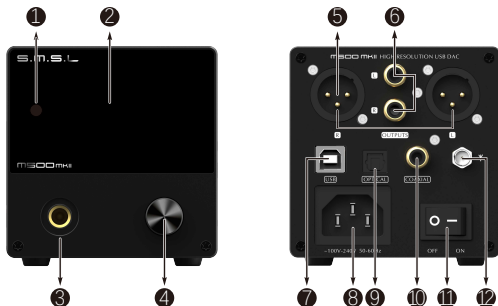


### Note

This remote controller use 2 x R03/AAA batteries.



## Display Interface and Instructions



- ① GND
- ② (+)HOT
- ③ (-)COLD

- |                 |                   |                           |
|-----------------|-------------------|---------------------------|
| ① Remote window | ② Display         | ③ 6.35mm headphone output |
| ④ Knob          | ⑤ Balanced output | ⑥ RCA output              |
| ⑦ USB input     | ⑧ Power input     | ⑨ Optical input           |
| ⑩ Coaxial input | ⑪ Power switch    | ⑫ Bluetooth antenna       |

### 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 M500 MKII", 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 M500 MKII, for example, going out, and back home, some phones will not re-connect the M500 MKII if the M500 MKII has not been re-boot, so you can press the Bluetooth button on the remote to Re-connect.

**Clear pairing:** In the Bluetooth input state, long press the FN button. After clearing the pairing, some phones may no longer be able to search for "SMSL M500 MKII". In this case, you need to delete the Bluetooth device "SMSL M500 MKII" which saved in the phone, and then search and pairing again.

Please turn down the volume before connecting the headphones to avoid excessive volume damage to the headset.

According to the advice of health experts, do not listen to the headphones for a long time so as not affect your hearing.

## Instructions

### ■ INPUT

- USB AUDIO
- OPTICAL
- COAXIAL
- BLUETOOTH

### ■ OUTPUT

- XLR+RCA
- HPA
- XLR
- RCA

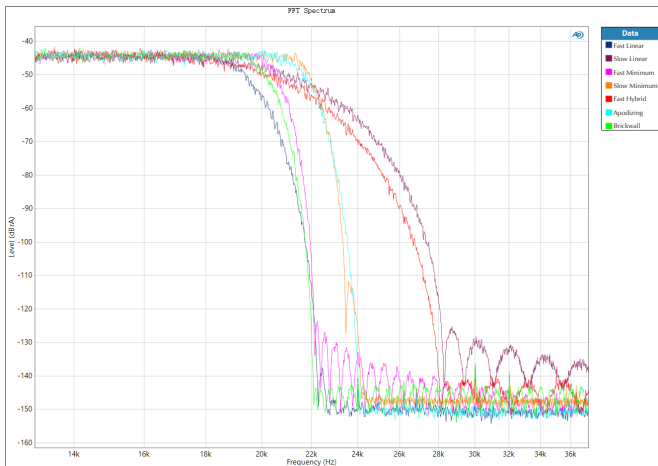
### ■ GAIN

- LOW (+0dB)
- HIGH (+9dB)

### ■ PCM FILTER

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





## ■ 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 M500 MKII.

- 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.



## Instructions

### ■ PRE MODE

Volume control enable or disable.

- **Vol Fixed** : In this mode, volume is fixed on max output level, and the M500 MKII will ignore the volume operations.
- **Vol Variable**: In this mode, volume can be adjust by remote controller, and make M500 MKII 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!

### ■ SPDIF MODE

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

- **NORMAL MODE**

NORMAL mode, only use the digital receiver chip (DIR) to process the SPDIF signal, used in most occasions, in this mode supports DoP playback.

- **PROCESSOR MODE**

PROCESSOR mode, in this mode M500 MKII 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, At this time, the system can support MQA full decoding, MQA-CD, DoP64.

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

## Instructions

### ■ 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 page, press and hold the button of the knob, the system will reset all settings, including Bluetooth pairing status.



